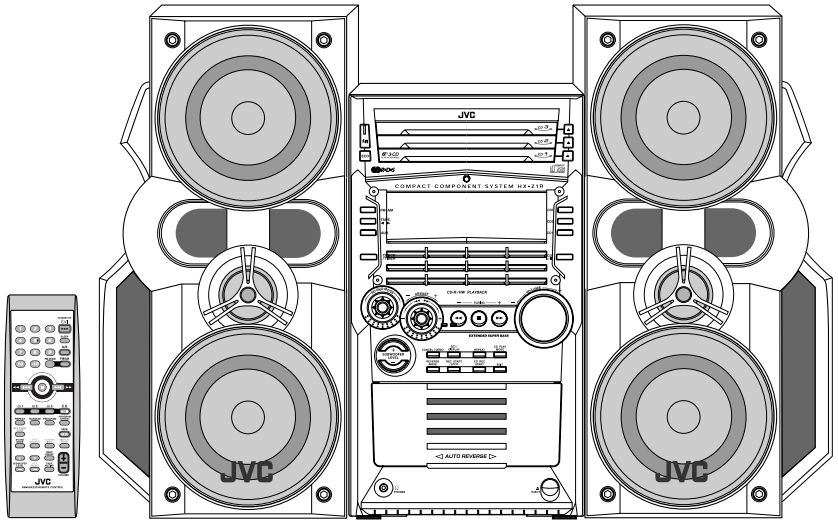
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

HX-Z1R



SP-HXZ1 CA-HXZ1R SP-HXZ1

COMPACT disc DIGITAL AUDIO

R·D·S

Area Suffix

B ---------- U.K.
E-------- Continental Europe
EN----------Northern Europe
EV----------Eastern Europe

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No.21114
Jul. 2002

Safety Precautions

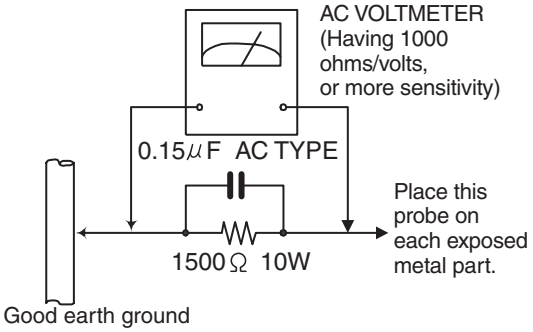
1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.

2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.

3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.

4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▮) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.

(This regulation does not correspond to J and C version.)

Safety precautions (U.K only)

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits.
2. Any unauthorised design alterations or additions will void the manufacturer's guarantee ; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
3. Essential safety critical components are identified by (⚠) on the Parts List and by shading on the schematics, and must never be replaced by parts other than those listed in the manual. Please note however that many electrical and mechanical parts in the product have special safety related characteristics. These characteristics are often not evident from visual inspection. Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the Service Manual and may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

Warning

1. Service should be performed by qualified personnel only.
2. This equipment has been designed and manufactured to meet international safety standards.
3. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
4. Repairs must be made in accordance with the relevant safety standards.
5. It is essential that safety critical components are replaced by approved parts.
6. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

Preventing static electricity

1. Grounding to prevent damage by static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

2. About the earth processing for the destruction prevention by static electricity

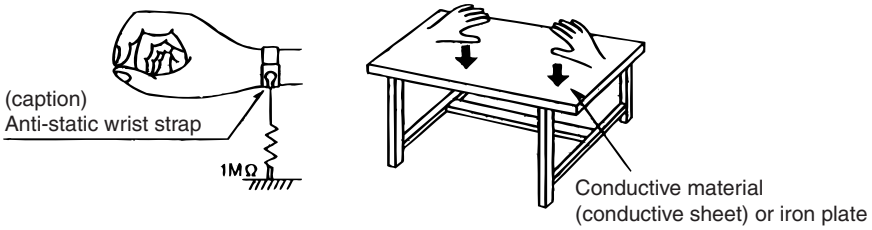
In the equipment which uses optical pick-up (laser diode), optical pick-up is destroyed by the static electricity of the work environment.
Be careful to use proper grounding in the area where repairs are being performed.

2-1 Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

2-2 Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)

2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

4. Handling the traverse unit (optical pickup)

1. Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.

2. Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.

3. Handle the flexible cable carefully as it may break when subjected to strong force.

4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it

Attention when traverse unit is decomposed

***Please refer to "Disassembly method" in the text for pick-up and how to detach the CD traverse mechanism.**

1. Remove the disk stopper and T. bracket on the CD changer mechanism assembly.
2. Disconnect the harness from connector on the CD motor board.
3. CD traverse unit is put up as shown in Fig.1.
4. Solder is put up before the card wire is removed from connector CN601 on the CD servo control board as shown in Fig. 2.
   (When the wire is removed without putting up solder, the CD pick-up assembly might destroy.)
5. Please remove solder after connecting the card wire with CN601 when you install picking up in the substrate.

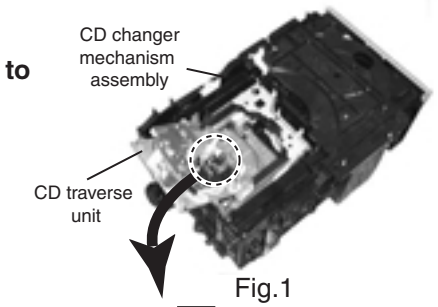


Fig.1

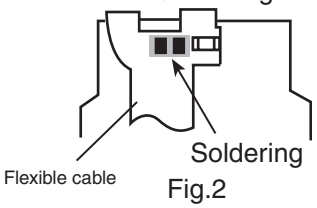


Fig.2

Important for laser products

1.CLASS 1 LASER PRODUCT

2.DANGER : Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

3.CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

4.CAUTION : The compact disc player uses invisible laserradiation and is equipped with safety switches whichprevent emission of radiation when the drawer is open and the safety interlocks have failed or are de feated. It is dangerous to defeat the safety switches.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

⚠ ***CAUTION*** **Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.**

VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

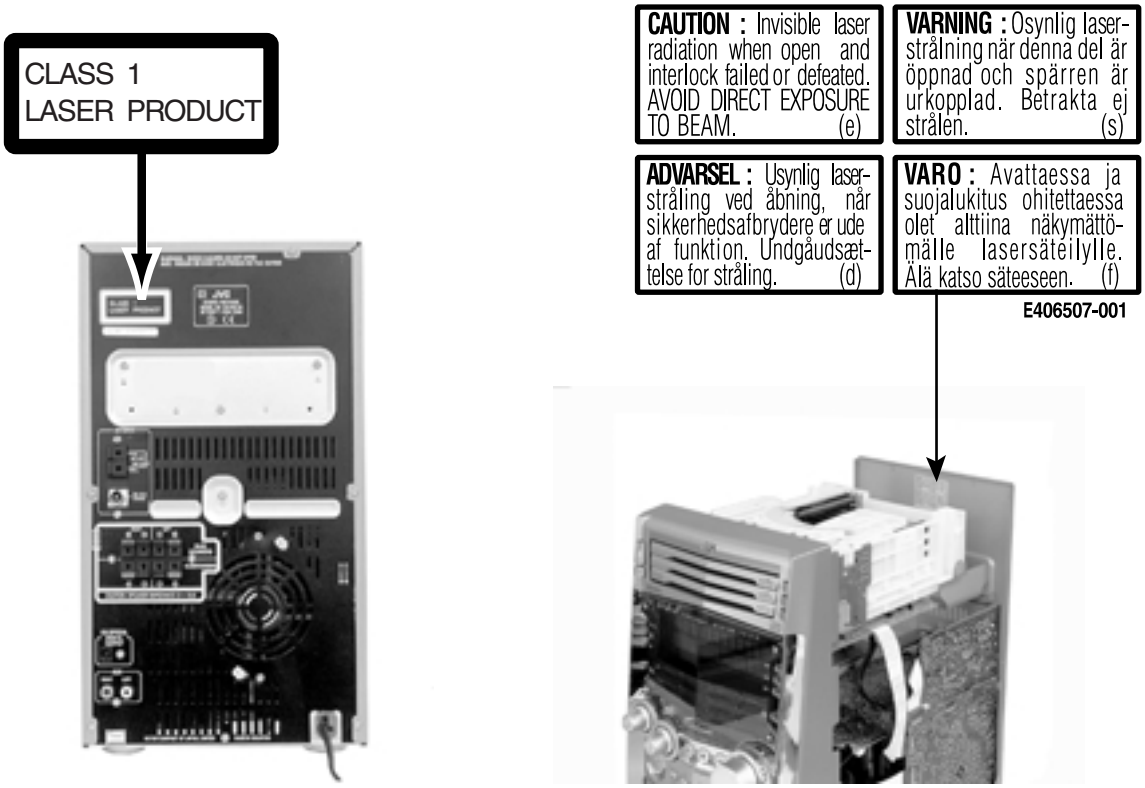
VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen.

ADVARSEL : Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstråling ved åpning,når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL


CLASS 1
LASER PRODUCT
CAUTION : Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)
VARNING : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)
ADVARSEL : Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgåudsættelse for stråling. (d)
VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)
E406507-001

Disassembly method

<Main board>

■Removing the metal cover (See Fig.1 ~ 3)

1. Remove the six screws **A** on the back of the body.
2. Remove the screw **B** on each side of the body.
3. Remove the metal cover from the body by lifting the rear part of the cover.

CAUTION: Do not break the front panel tab fitted to the metal cover.

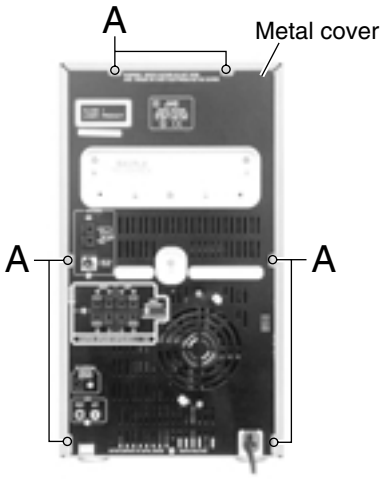


Fig.1

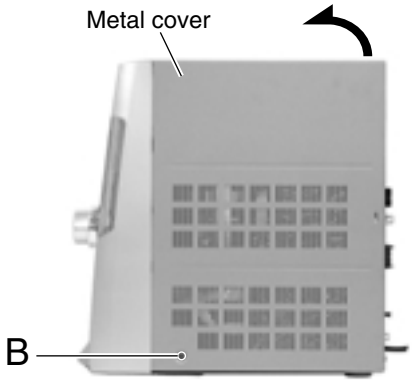


Fig.2

■Removing the CD changer mechanism assembly (See Fig.4, 5)

- Prior to performing the following procedure, remove the metal cover.

1. Disconnect the card wire from connector CN651 on the CD servo control board on the right bottom of the CD changer mechanism assembly.
2. Remove the four screws **C** attaching the CD changer mechanism assembly on top of the body.
3. Remove the CD changer mechanism assembly while lifting the rear part.

CAUTION: Do not damage the CD fitting when removing the CD changer mechanism assembly.

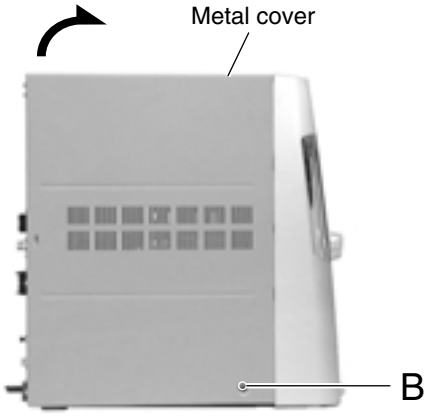


Fig.3

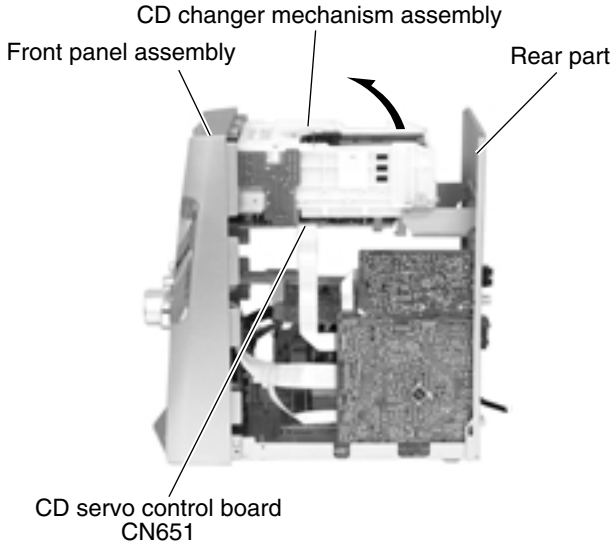


Fig.4

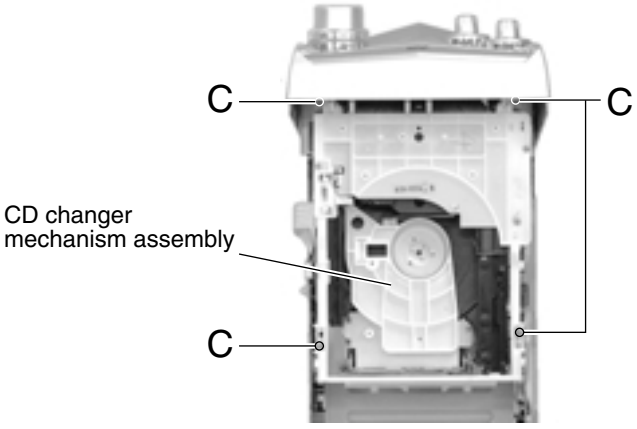


Fig.5

■ Removing the front panel assembly (See Fig.6 ~ 9)

- Prior to performing the following procedure, remove the metal cover and the CD changer mechanism assembly.

1. Disconnect the card wire from connector CN44 and CN870 on the main board on the right side of the body. Remove the screw **D** attaching the wire from extending from the underside of the front panel assembly.

2. Disconnect the wire from connector CN701 on the bridge board.

3. Cut the tie band.

4. Disconnect the wire from connector CN231 and CN232 on the primary board on the left side of the body and remove the band fixing the wire.

5. Remove the plastic rivet attaching the inner bar in the center of the front panel assembly.

> REFERENCE: Keep the plastic rivet for reuse.

6. Remove the three screws **E** attaching the front panel assembly at the bottom of the body.

7. Release the two joints **a** on the lower left and right sides of the front panel assembly using a screwdriver, and remove the front panel assembly toward the front.

> REFERENCE: Front panel need to be tilt a little bit as release from bottom chassis.

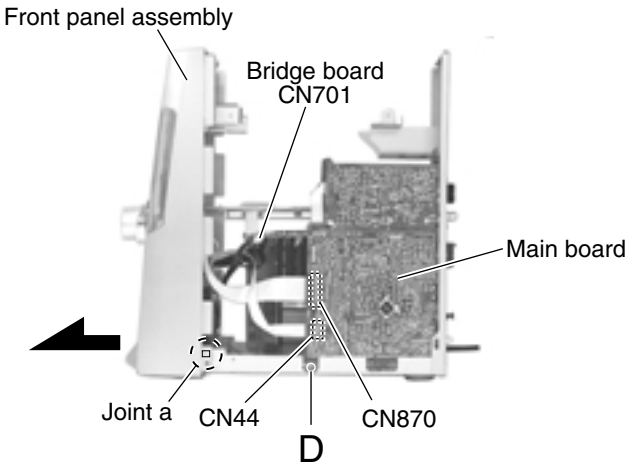


Fig.6

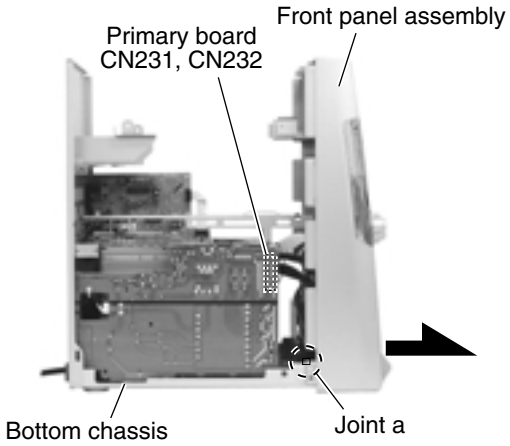


Fig.7

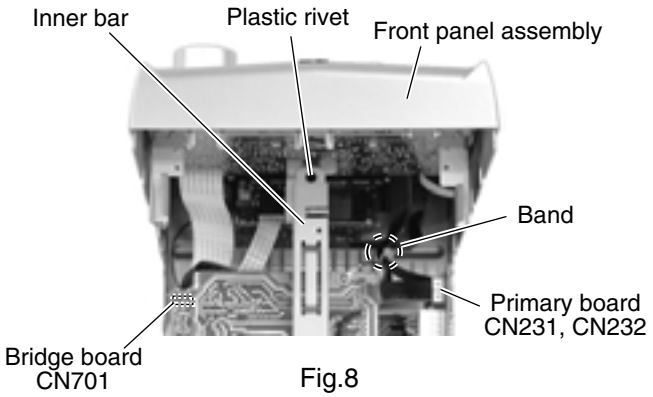


Fig.8

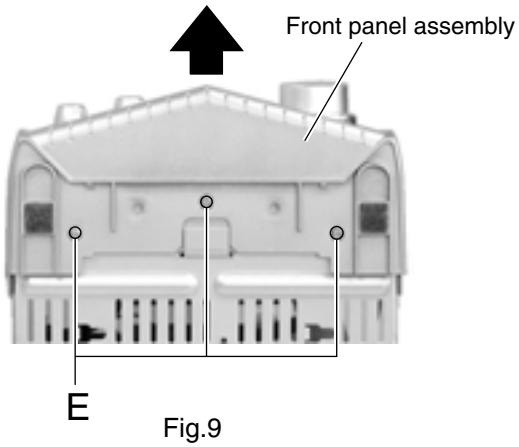


Fig.9

■ Removing the antenna board
(See Fig.10, 11)

・ Prior to performing the following procedure, remove the metal cover.

REFERENCE: There is no need to remove the CD changer mechanism assembly.

1. Disconnect the card wire from connector CN1 on the antenna board on the right side of the body.

2. Remove the band attaching the antenna board.

3. Remove the two screws **F** on the rear panel on the back of the body.

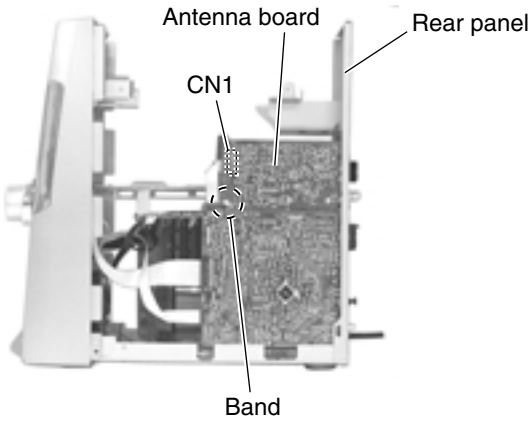


Fig.10

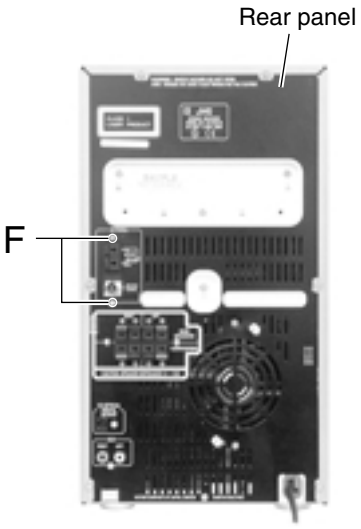


Fig.11

■ Removing the rear panel

(See Fig.12 ~ 17)

- Prior to performing the following procedure, remove the metal cover and the CD changer mechanism assembly.

1. Remove holding board by remove two plastic rivets and then slide out the holding board as shown in fig. 12.
2. Disconnect fan wire from connector CN206.
3. Cut off the tie band that tied fan wire on inner bar.
4. Remove eight screws **F** from rear panel.
5. Detach joint **b** to release rear panel from inner bar.
6. Release joints **c** which on right bottom and left bottom of rear panel. The joint can be release by pull outward the side of rear panel.

REFERENCE: Fan assembly will come off with rear panel.

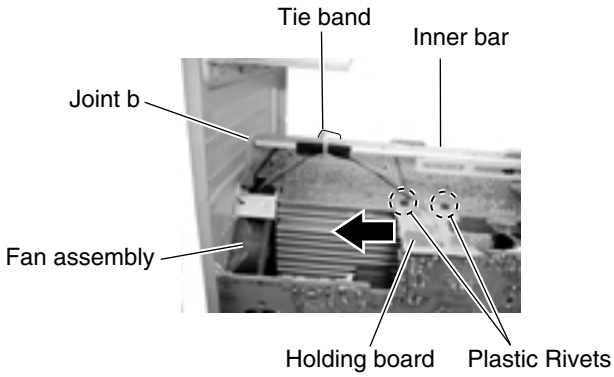


Fig.12

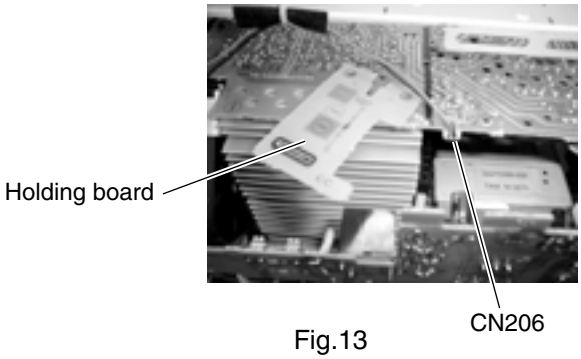


Fig.13

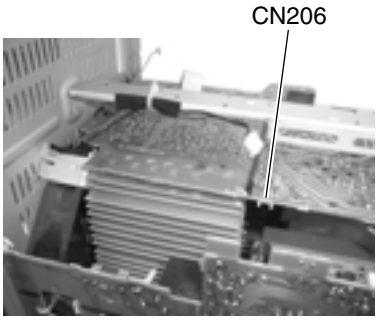


Fig.14

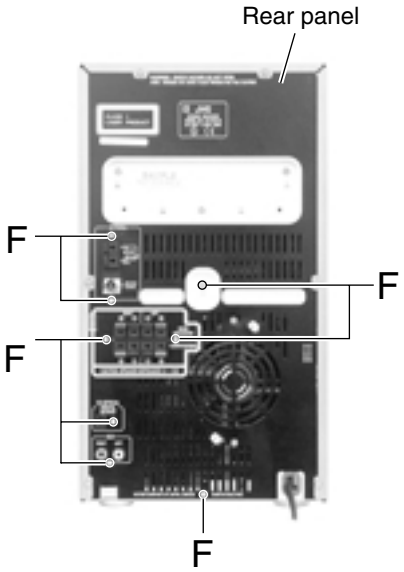


Fig.15

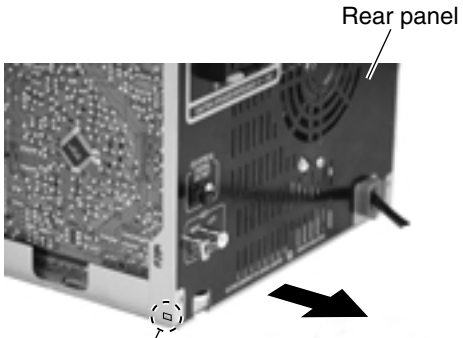


Fig.16

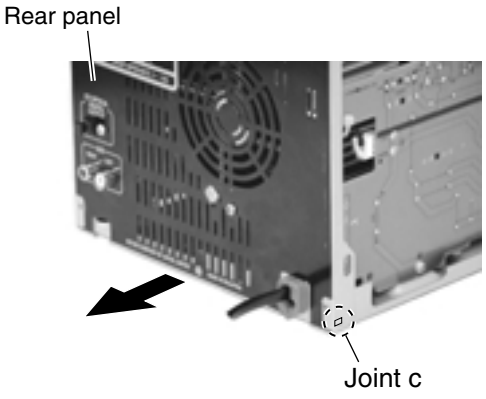


Fig.17

■ Removing the fan assembly (See Fig.18, 19)

- Prior to performing the following procedure, remove the metal cover and the CD changer mechanism assembly and the rear panel.

1. Remove two screws **G** on the rear panel.

2. Rotate fan assembly in clockwise direction to release fan assembly from rear panel (joint **d**).

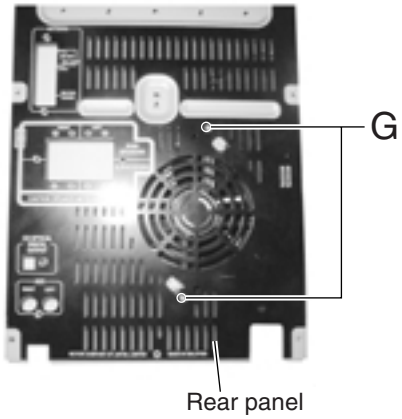


Fig.18

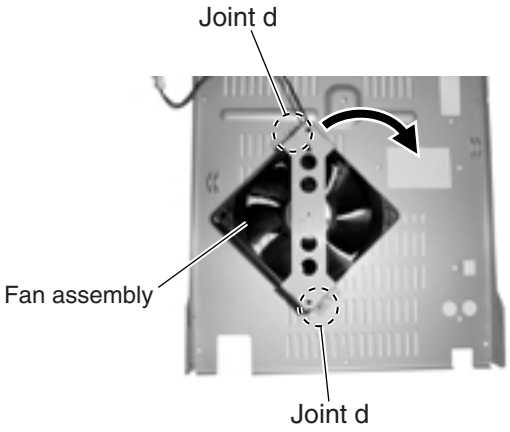


Fig.19

■ Removing the main board (See Fig.20)

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly, the antenna board and the rear panel.

1. Disconnect the card wire from connector CN44 and CN870 on the main board.

2. Remove the screw **D** attaching the board.

3. Disconnect connector CN217 and CN311 on the main board outward and release from the base chassis (joint **e**) upward.

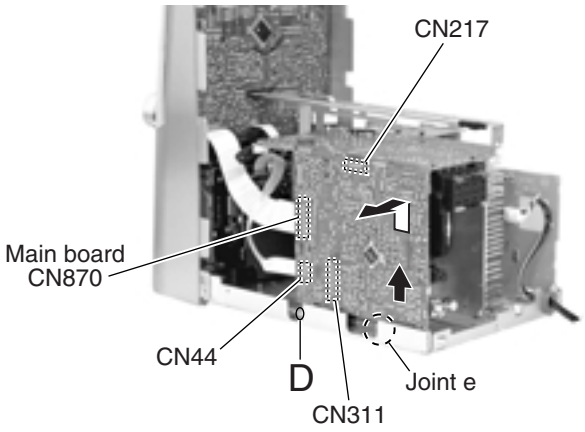


Fig.20

■Removing the bridge board / regulator board / heat sink (See Fig.21 ~ 27)

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly, the rear panel, the antenna board and main board.

1. Remove the plastic rivet attaching the stay inner bar and remove the screw **H** on the bridge board.

2. Move the inner bar forward and upward to release from the front section (joint **f**) and from the bridge board (two joints **h**) respectively.

3. Remove the two plastic rivets setting the holding board fixing the bridge board and the primary board. Move the bracket board in the direction of the arrow.

4. Disconnect the wire from connector CN212, CN213 and CN214 on the primary board respectively and remove the band attaching the wires.

5. Disconnect the wire from connector CN701 on the bridge board.

6. Remove the two screws **I** attaching the heat sink bracket and move the heat sink in the direction of the arrow to release from the base chassis. The bridge board and the regulator board come off with the heat sink.

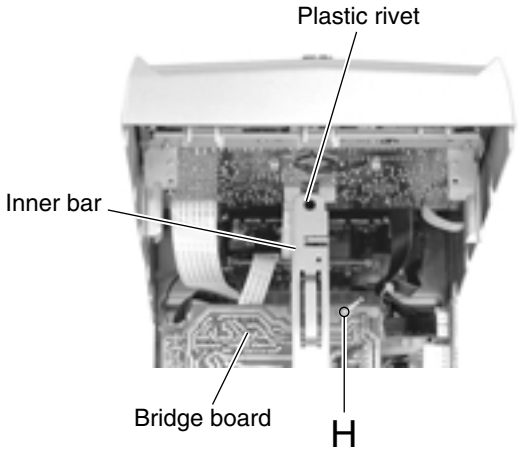


Fig.21

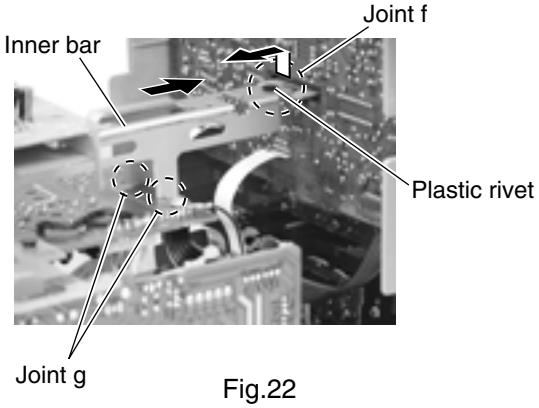


Fig.22

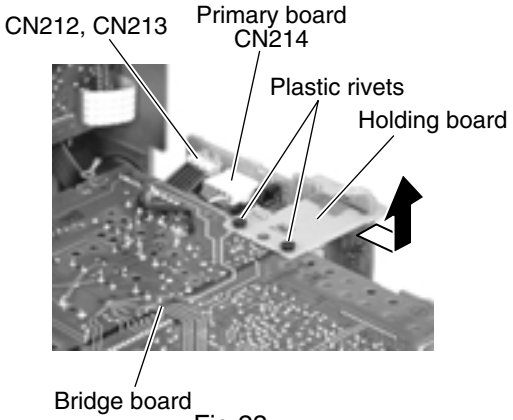


Fig.23

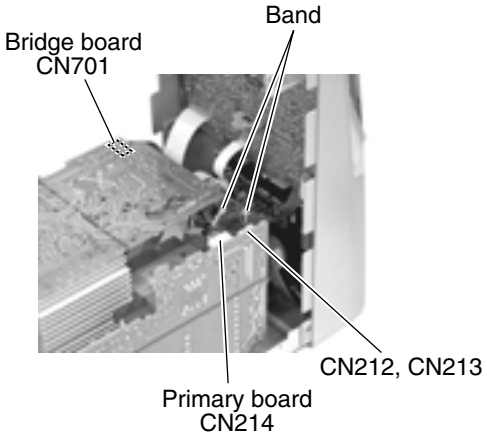


Fig.24

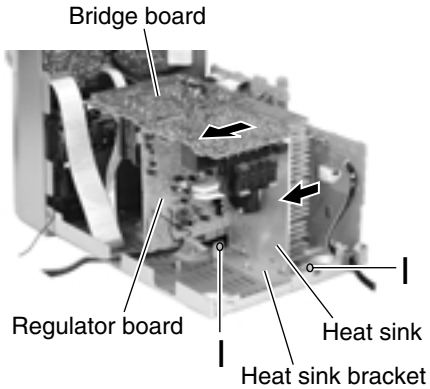


Fig.25

7. Remove the two screws **J** attaching the heat sink bracket.

8. Remove the two screws **M**, detach bridge board from regulator board by disconnect connector CN205.

9. Remove the screws **K** and **L** to detach regulator board from heat sink.

CAUTION: As assembly back the regulator board and bridge board to heat sink.
Regulator board MUST be assembly to heat sink first and screw **K** and **L** MUST be screwed before bridge board attach to regulator board.

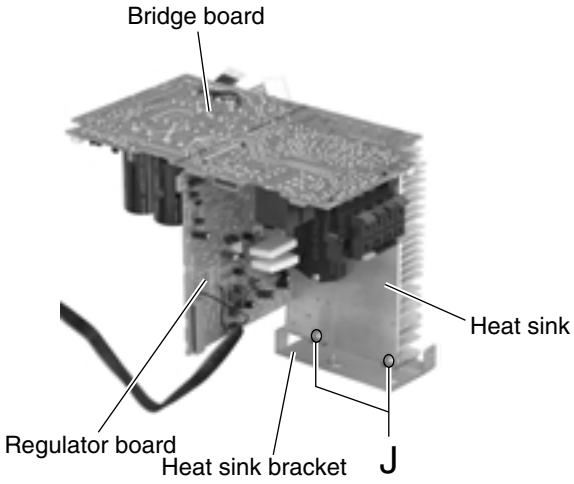


Fig.26

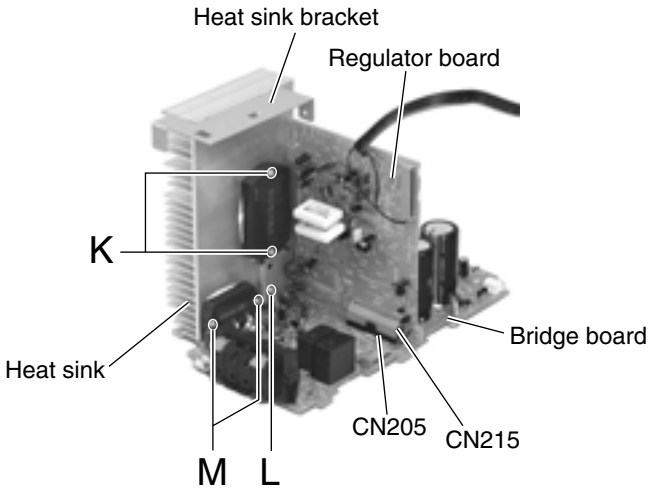


Fig.27

■Removing the power transformer assembly (See Fig.28, 29)

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly, the rear panel, the main board and the bridge board / regulator board.

1. Remove the screw **N** attaching the primary board.
2. Disconnect the wire from connector CN231 and CN232 on the primary board.
3. Remove the four screws **O** attaching the power transformer assembly.
4. Cut the tie band and detach power cord from primary board.

REFERENCE: When disconnecting the power cord from connector CN250 on the primary board, remove the fixing band.

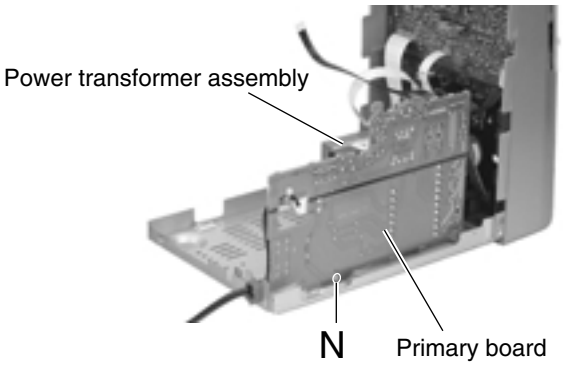


Fig.28

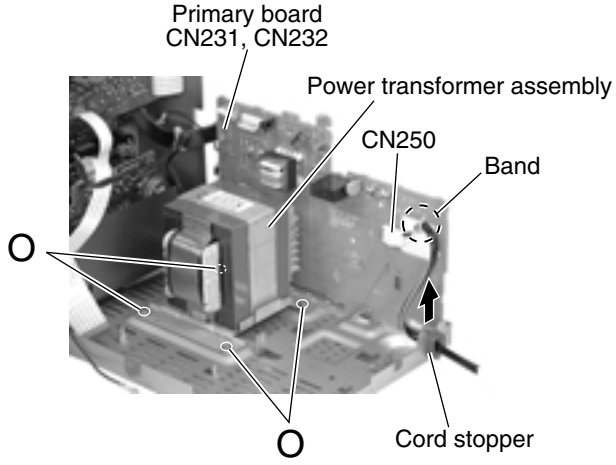


Fig.29

<Front panel assembly>

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly and the front panel assembly.

■Removing the cassette mechanism assembly (See Fig.30)

1. Disconnect the card wire from connector CN33 on the head amplifier & mechanism control board.
2. Remove the two screws **P**, and the screw **Q** attaching the cassette mechanism assembly.

■Removing the headphone board (See Fig.30)

1. Remove the screw **Q** attaching the wire extending from the headphone board.
2. Remove the screw **R** and pull out the headphone board backward.

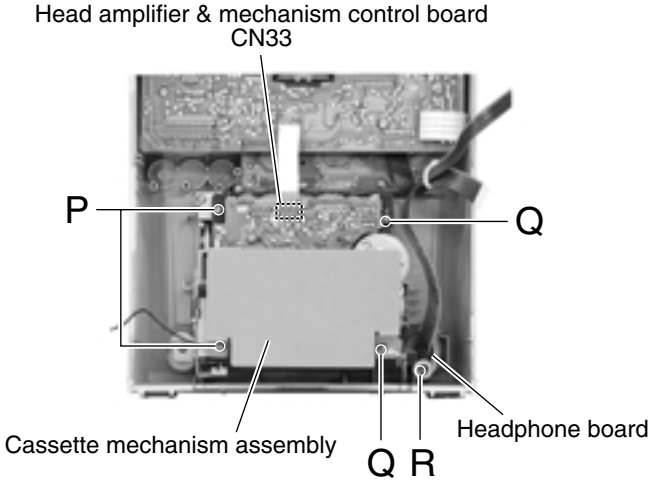


Fig.30

■ Removing the display system control board (See Fig.31, 32)

1. Remove the four screws **S** attaching the stay bracket (1).

2. Disconnect the card wire from connector CN43 and CN880 on the display system control board.

   Remove the ten screws **T** attaching the display system control board.

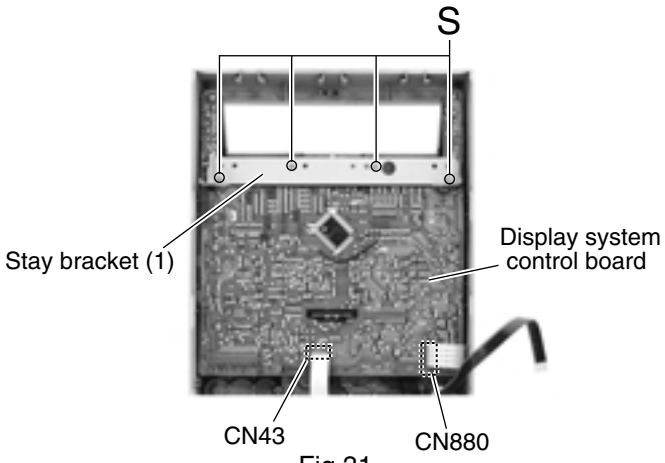


Fig.31

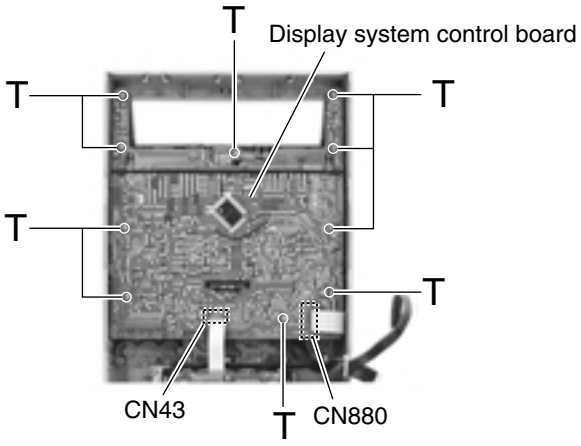


Fig.32

■ Removing the bottom board (See Fig.33 ~ 35)

- Prior to performing the following procedure, remove the display system control board.

1. Pull out preset knob, sound mode knob on the front panel toward the front.

2. Remove the nut at volume knob encoder from front panel.

3. Remove the four screws **U** attaching the stay bracket (2).

4. Remove the eight screws **V** attaching the bottom board.

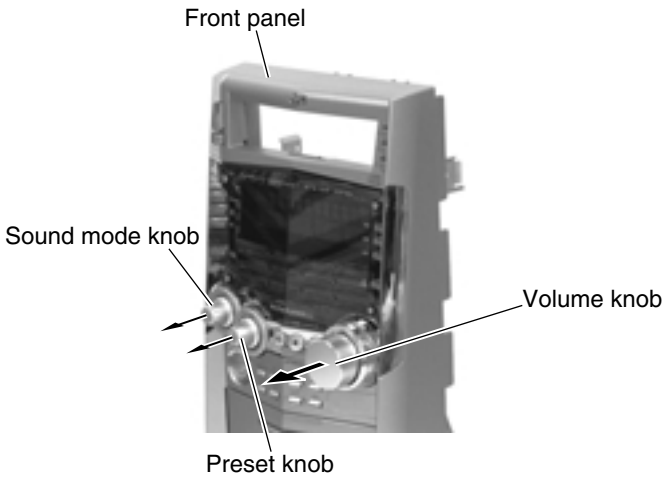


Fig.33

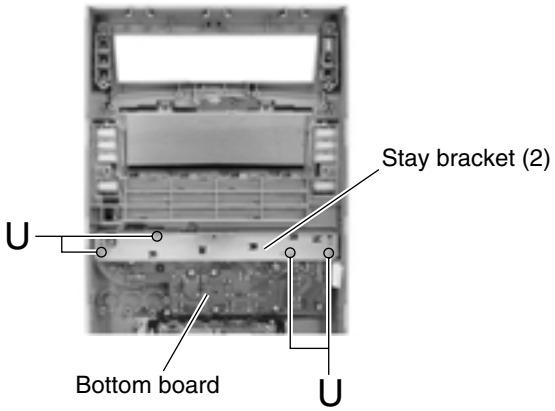


Fig.34

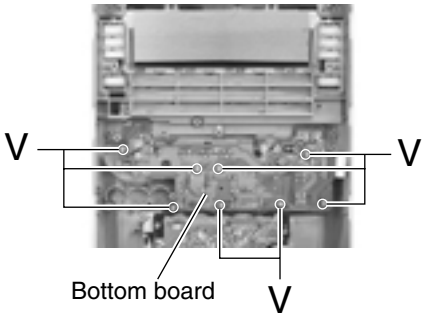


Fig.35

≪CD Changer Mechanism Type:VC3 Section≫

■ Removing the CD Servo control board (See Fig.1)

1.Remove the metal cover.
2.Remove the CD changer mechanism assembly.
3.From bottom side the CD changer mechanism assembly, remove the four screws **A** retaining the CD servo control board.
4.Absorb the four soldered positions "a" of the right and left motors with a soldering absorber.
5.Pull out the earth wire on the CD changer mechanism assembly.
6.Disconnect the connector CN854 on the CD servo control board.
7.Disconnect the card wire CN601 and the connector CN801 on the CD servo control board.

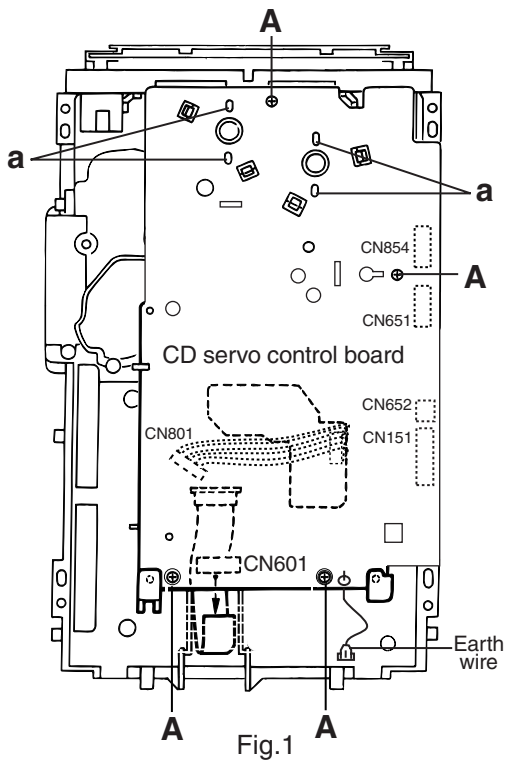


Fig.1

■ Removing the CD tray assembly (See Fig.2~4)

1. Remove the front panel assembly.
2. Remove the CD changer mechanism assembly.
3. Remove the CD Servo control board.
4. Remove the screw **B'** retaining the lod stopper.
5. From the T.bracket section "b" and clamper base section "c" , remove both of the edges fixing the rod(See Fig.2 and 3).
6. Remove the screw B retaining the disc stopper (See Fig.3).
7. Remove the three screws **C** retaining the T.bracket (See Fig.3).
8. Remove the screw **D** retaining the clamper assembly (See Fig.3).
9. From the left side face of the chassis assembly, remove the one screw **E** retaining both of the return spring and lock lever(See Fig. 4).
10. By removing the pawl at the section "d" fixing the return spring, dismount the return spring(See Fig.4).
11. Remove the three lock levers(See Fig.4).

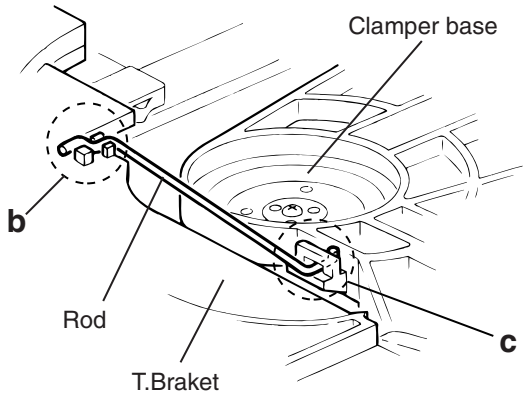


Fig.2

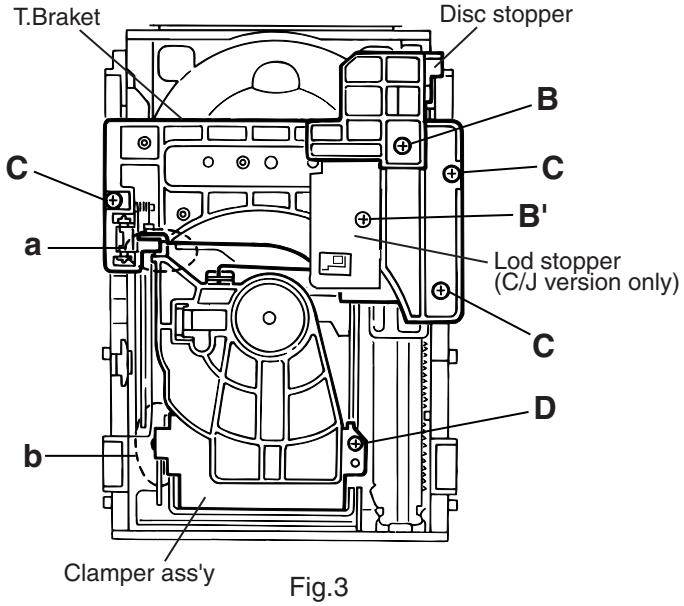


Fig.3

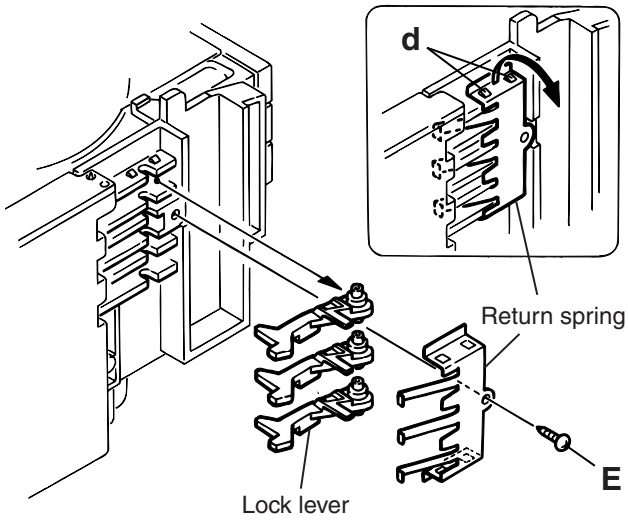


Fig.4

11. Check whether the lifter unit stopper has been caught into the hole at the section "e" of CD tray assembly as shown in Fig.5.
12. Make sure that the driver unit elevator is positioned as shown in Fig.6 from to the second or fifth hole on the left side face of the CD changer mechanism assembly.

[Caution] In case the driver unit elevator is not at above position, set the elevator to the position as shown in Fig.7 by manually turning the pulley gear as shown in Fig.8.

13. Manually turn the motor pulley in the clockwise direction until the lifter unit stopper is lowered from the section "e" of CD tray assembly(See Fig.8).
14. Pull out all of the three stages of CD tray assembly in the arrow direction "f" until these stages stop (See Fig.6).
15. At the position where the CD tray assembly has stopped, pull out the CD tray assembly while pressing the two pawls "g and g' " on the back side of CD tray assembly(See Fig.9). In this case, it is easy to pull out the assembly when it is pulled out first from the stage CD tray assembly.

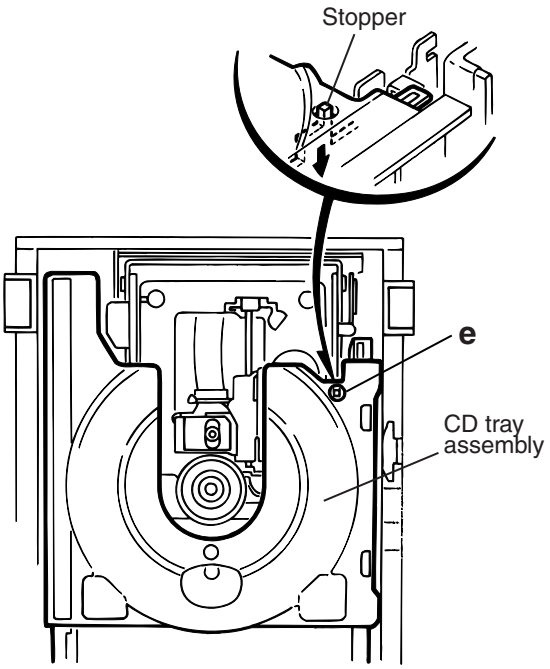


Fig.5

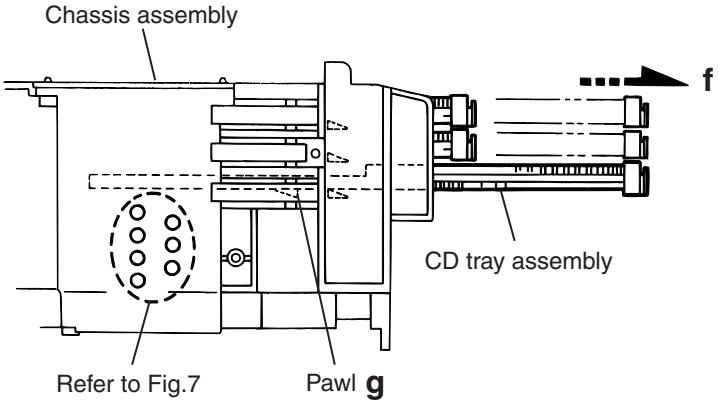


Fig.6

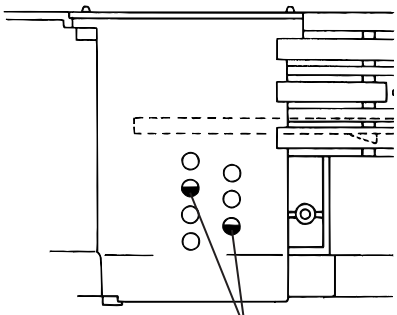


Fig.7

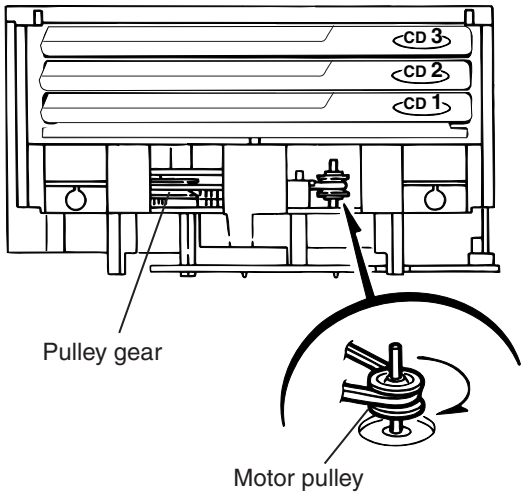


Fig.8

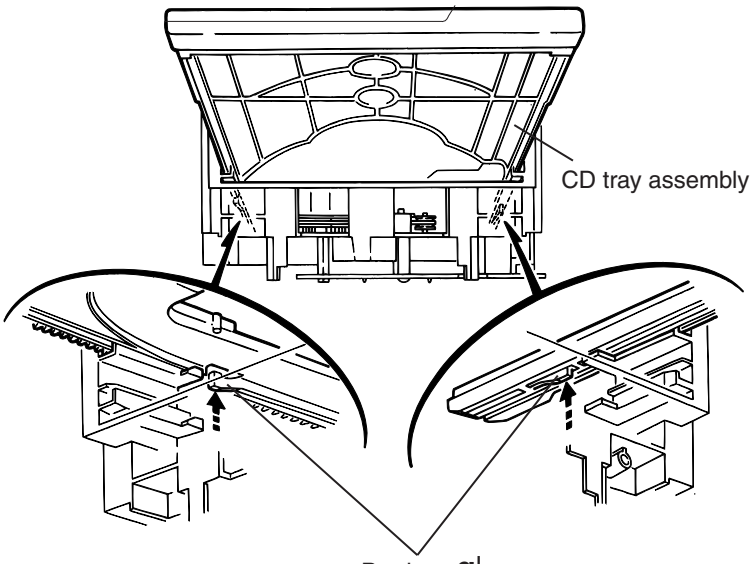


Fig.9

■ Removing the CD loading mechanism assembly(See Fig.10)

1. While turning the cams R1 and R2 assembly in the arrow direction "h" ,align the shaft "i" of the CD loading mechanism assembly to the position shown in Fig.10.
2. Remove the four screws **F** retaining the CD loading mechanism assembly.

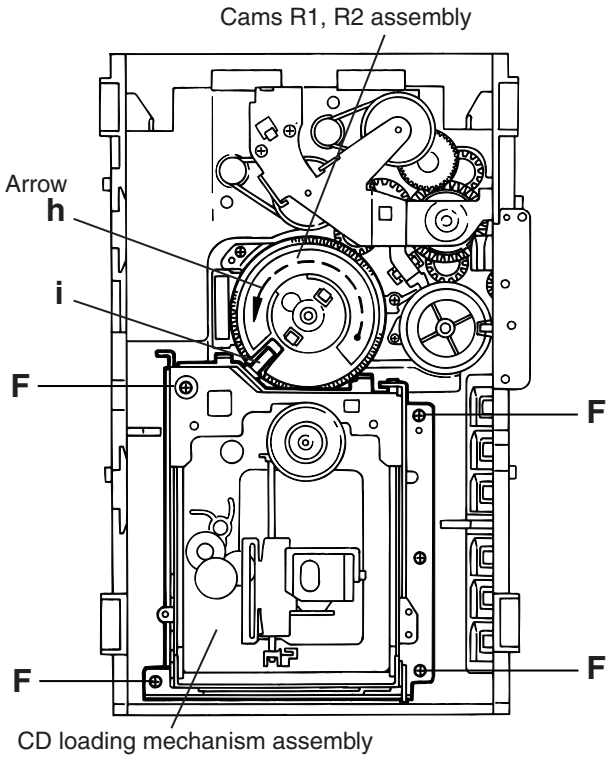


Fig.10

■ Removing the CD traverse mechanism (See Fig.11 and 12)

1. For dismounting only the CD traverse mechanism without removing the CD loading mechanism assembly, align the shaft "**j**" of the CD loading mechanism assembly to the position shown Fig.11 while turning the cam R1 and R2 assembly in the arrow direction "**k**" .
2. By raising the CD loading mechanism assembly in the arrow direction "**l**", remove the assembly from the lifter unit

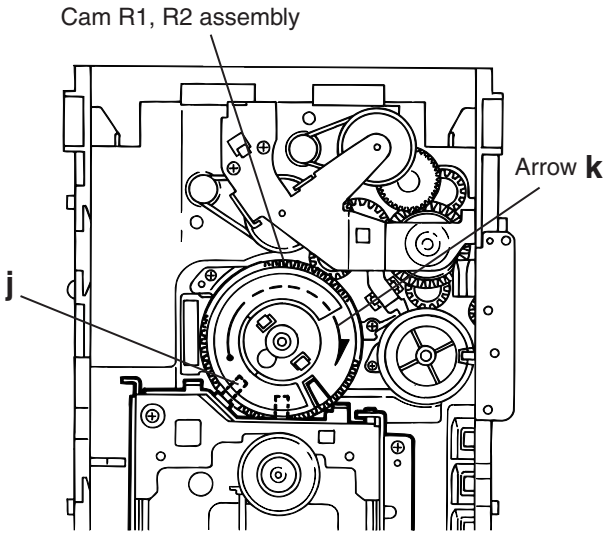


Fig.11

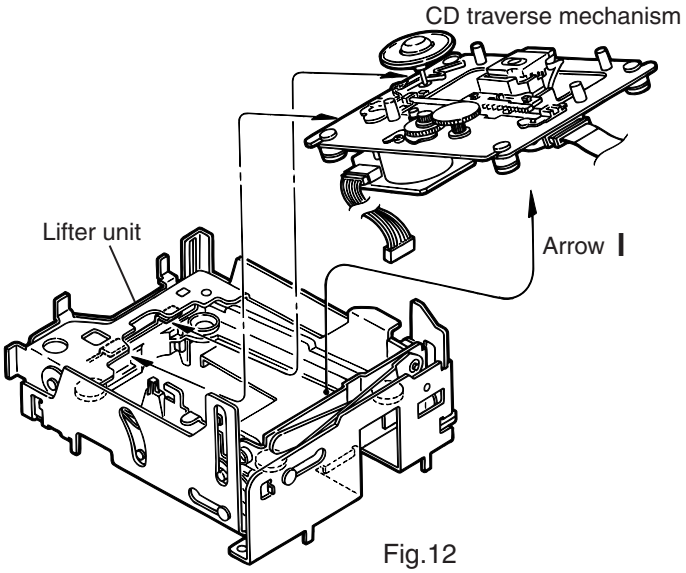


Fig.12

■ Removing the CD pick unit (See Fig.13)

1. Move the cam gear in the arrow direction "**m**" . Then, the CD pickup unit will be moved in the arrow direction "**n**" .
2. According to the above step, shift the CD pickup unit to the center position.
3. While pressing the stopper retaining the shaft in the arrow direction "**o**" , pull out the shaft in the arrow direction "**p**".
4. After dismounting the shaft from the CD pickup unit, remove the CD pickup unit

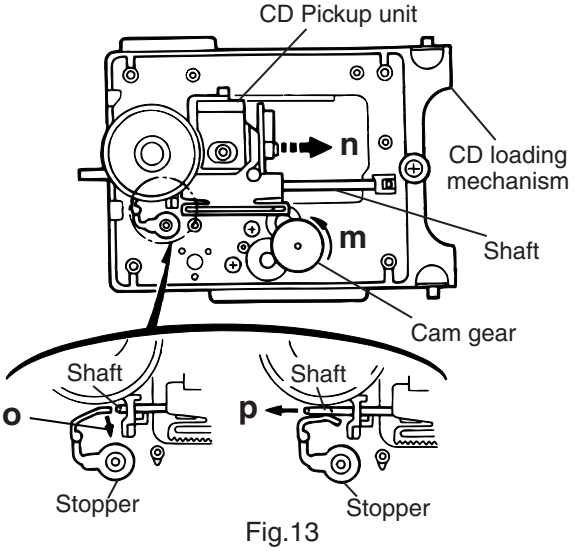


Fig.13

■ Removing the try select switch board (See Fig.14)

1. Remove the two screws G retaining the tray select switch board.
2. Disconnect the tray select switch board from connector CN804 on the CD servo control board.

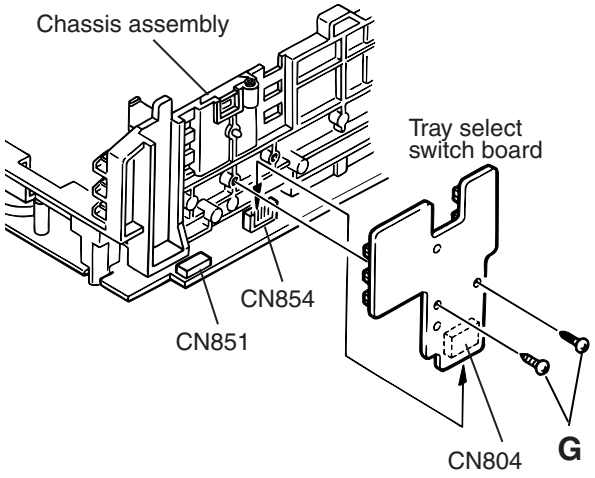


Fig.14

■ Removing the cam unit (See Fig.15 ~17)

1. Remove the CD loading mechanism assembly.
2. While turning the cam gear "**q**", align the Paul "**r**" position of the drive unit to the notch position(Fig.16) on the cam gear "**q**".
3. Pull out the drive unit and cylinder gear(See Fig.17).
4. While turning the cam gear "**q**", align the Paul "**s**" position of the select lever to the notch position(Fig.18) on the cam gear "**q**".
5. Remove the four screws **H** retaining the cam unit(cam gear "q" and cams R1/R2 assembly)(See Fig.18).

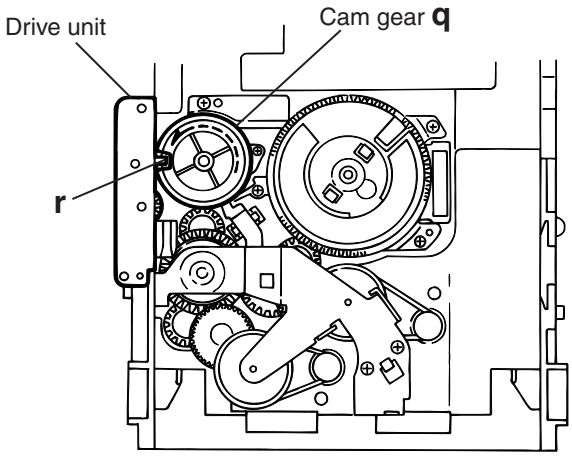


Fig.15

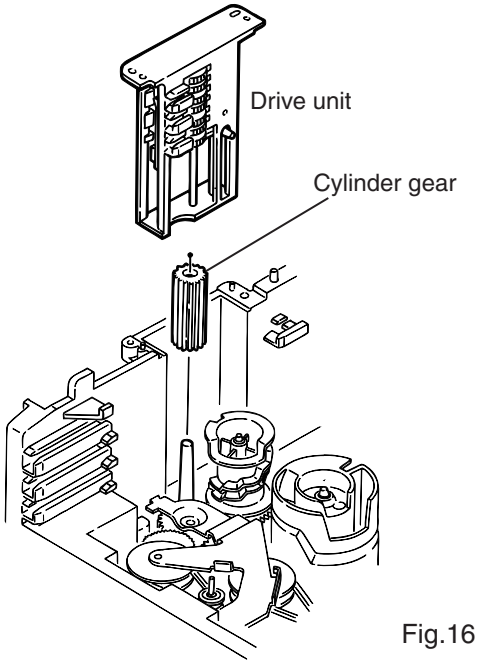


Fig.16

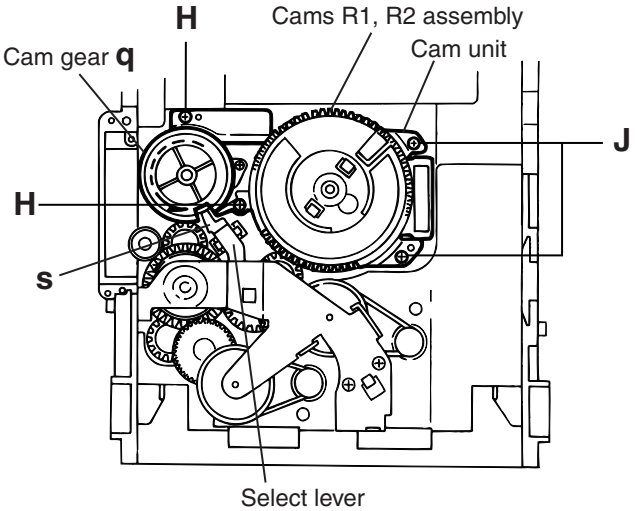


Fig.17

■ Removing the actuator motor and belt (See Fig.18~21)

1. Remove the two screws **l** retaining the gear bracket (See Fig.18).
2. While pressing the pawl "**t**" fixing the gear bracket in the arrow direction, remove the gear bracket (See Fig.18).
3. From the notch "**u** section" on the chassis assembly fixing the edge of gear bracket, remove and take out the gear bracket(See Fig. 19).
4. Remove the belts respectively from the right and left actuator motor pulleys and pulley gears(See Fig. 18).
5. After turning over the chassis assembly, remove the actuator motor while spreading the four pawls "**v**" fixing the right and left actuator motors in the arrow direction(See Fig. 20).

[Note] When the chassis assembly is turned over under the conditions wherein the gear bracket and belt have been removed, then the pulley gear as well as the gear, etc. constituting the gear unit can possibly be separated to pieces. In such a case, assemble these parts by referring to the assembly and configuration diagram in Fig. 21.

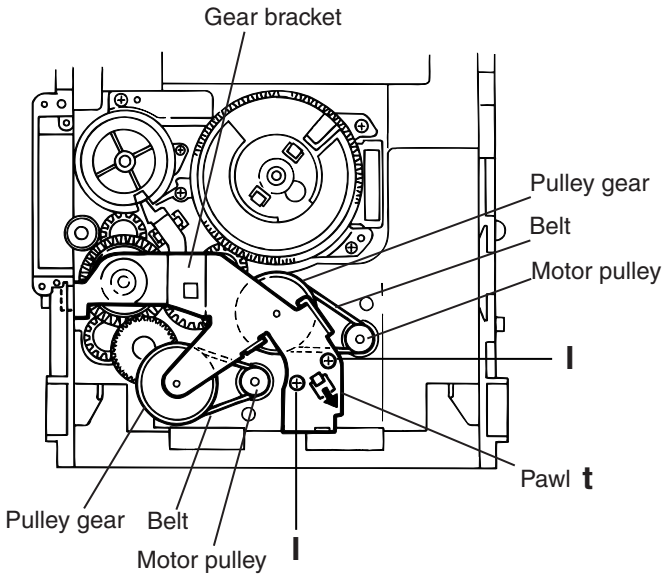


Fig.18

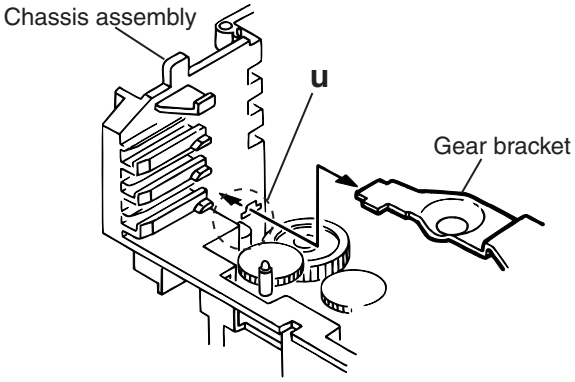


Fig.19

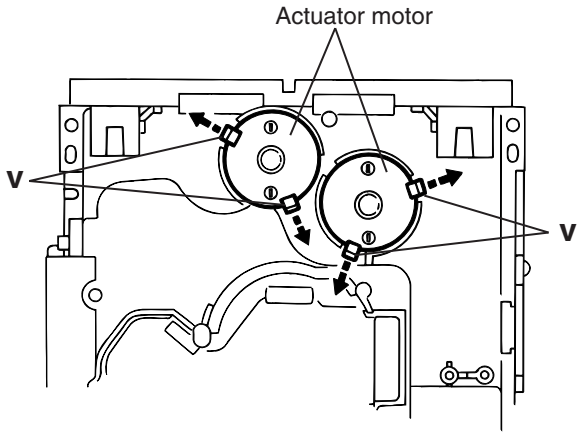


Fig.20

Assembly and Configuration Diagram

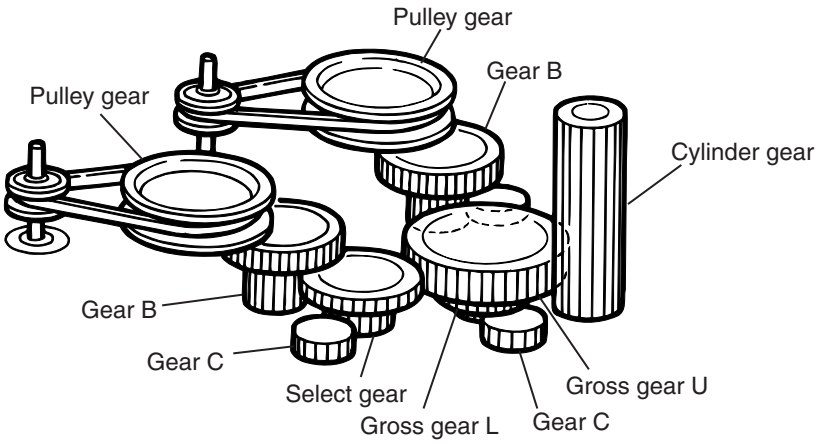


Fig.21

■ Removing the cams R1/R2 assembly and cam gear q(See Fig.22)

1. Remove the slit washer fixing the cams R1 and R2 assembly.
2. By removing the two pawls "**w**" fixing the cam R1, separate R2 from R1.
3. Remove the slit washer fixing the cam gear "**q**".
4. Pull out the cam gear "**q**" from the C.G. base assembly.

■ Removing the C.G. base assembly (See Fig.22 and 23)

Remove the three screws **J** retaining the C.G. base assembly.

[Caution] To reassemble the cylinder gear, etc.with the cam unit (cam gear and cans R1/R2 assembly), gear unit and drive unit, align the position of the pawl "**x**" on the drive unit to that of the notch on the cam gear "**q**". Then, make sure that the gear unit is engaged by turning the cam gear "**q**" (See Fig. 24).

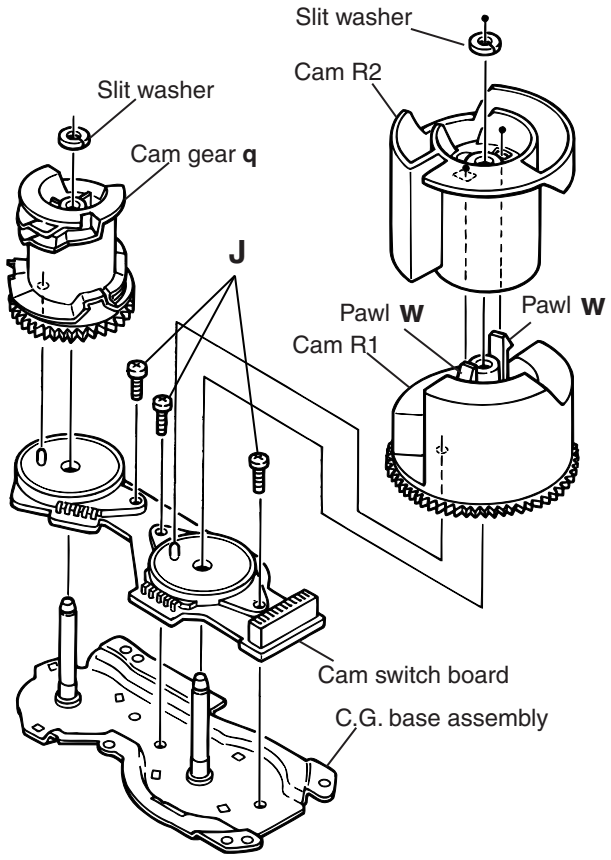


Fig.22

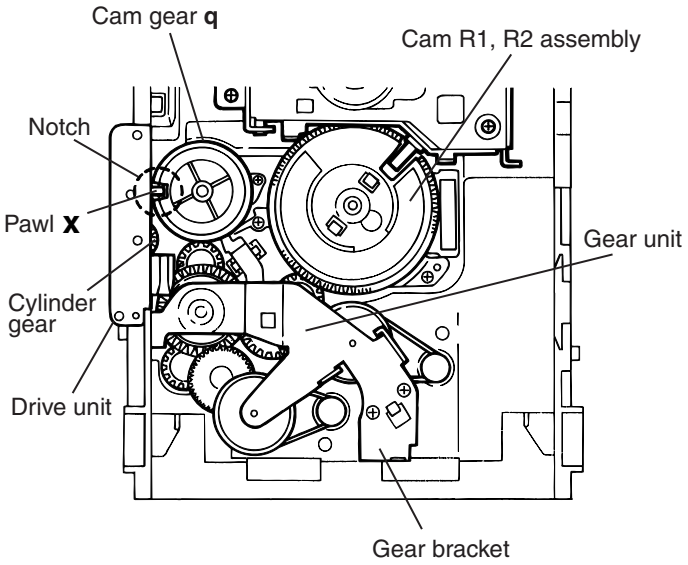


Fig.23

<Cassette mechanism section>

■Removing the playback / recording & eraser head (See Fig. 1 ~ 3)

1. While shifting the trigger arms seen on the right side of the head mount in the arrow direction, turn the flywheel R in counterclockwise direction until the head mount has gone out with a click (See Fig. 1).

2. When the flywheel (R) is rotated in counterclockwise direction, the playback / recording & eraser head will be turned in counterclockwise direction from the position in Fig. 2 to that in Fig. 3.

3. At this position, disconnect the flexible P.C. board (outgoing from the playback / recording & eraser head) from the connector CN31 on the head amplifier & mechanism control P.C. board.

4. Remove the flexible P.C. board from the chassis base.

5. Remove the spring **a** from behind the playback / recording & eraser head.

6. Loosen the reversing azimuth screw retaining the playback / recording & eraser head.

7. Take out the playback / recording & eraser head from the front of the head mount.

8. The playback / recoring & eraser head should also be removed similarly according to steps 1 to 7 above.

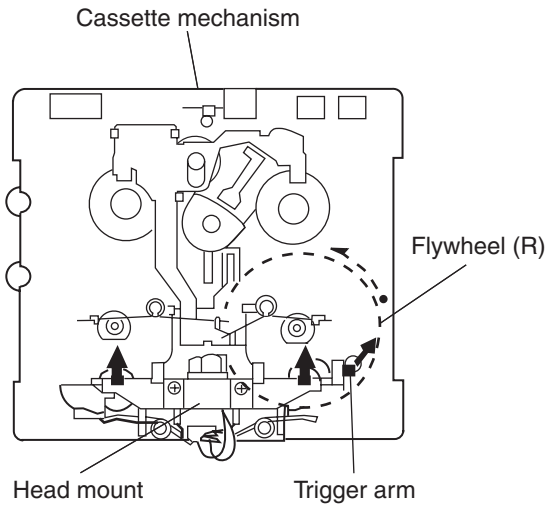


Fig. 1

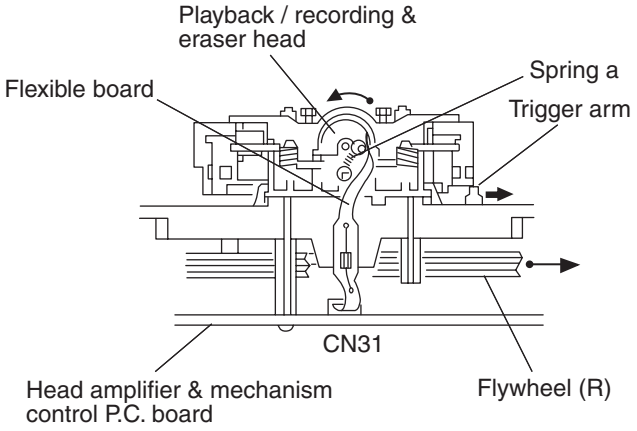


Fig. 2

■Reassembling the playback / recording & eraser head (See Fig.2, 3)

1. Reassemble the playback head from the front of the head mount to the position as shown in Fig. 3.

2. Fix the reversing azimuth screw.

3. Set the spring **1** from behind the playback / recording & eraser head.

4. Attach the flexible P.C. board to the chassis base, as shown in Fig. 3.

5. The playback / recording & eraser head should also be reassembled similarly to step 1 to 4 above.

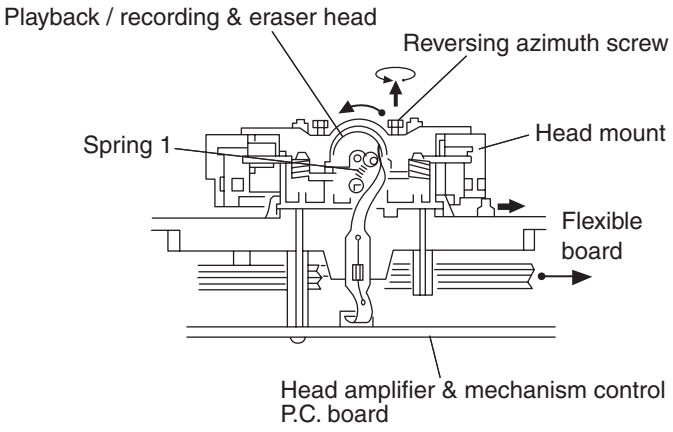


Fig. 3

■Removing the head amplifier & mechanism control board (See Fig. 4)

1. Remove the cassette mechanism assembly.

2. After turning over th cassette mechanism assembly, remove the three screws **A** retaining the head amplifier & mechanism control board.

3. Disconnect the connector CN32 on the board including the connector CN1 on the reel pulse P.C. board.

4. When necessary, remove the 4 pin parallel wire soldered to the main motor.

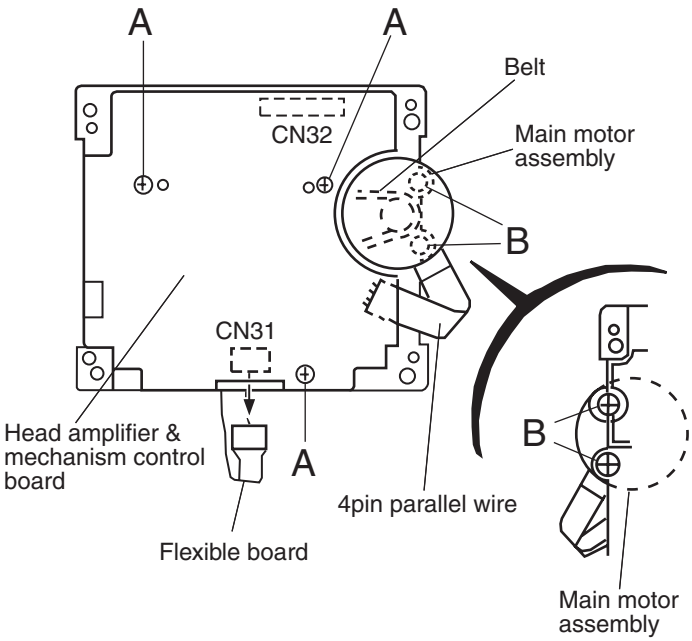


Fig. 4

■Removing the main motor assembly (See Fig.4 ~ 6)

1. Remove the two screws **B** retaining the main motor assembly (See Fig. 4 and 4a).

2. While raising the main motor, remove the capstan belt from the motor pulley (See Fig. 4a).

CAUTION: Be sure to handle the capstan belt so carefully that this belt will not be stained by grease and other foreign matter. Moreover, this belt should be hanged while referring to the capstan belt hanging method in Fig. 5 and 6.

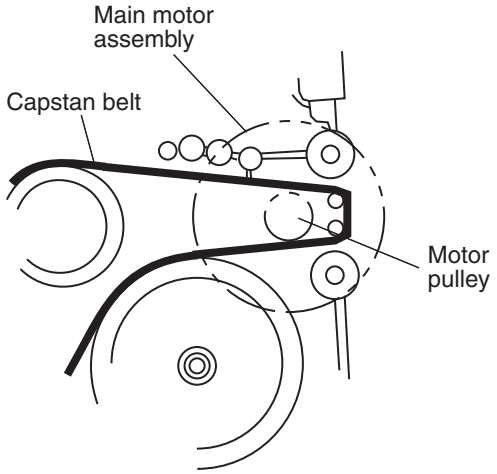


Fig. 4a

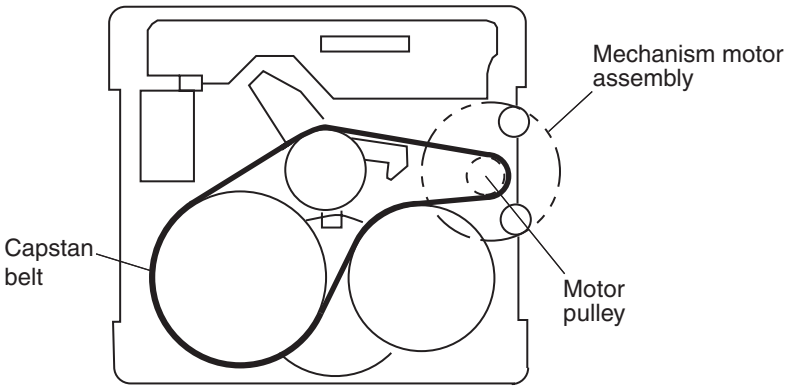


Fig. 5

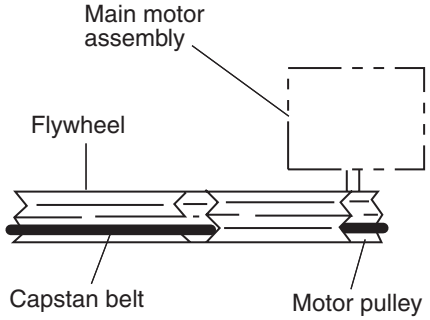


Fig. 6

■ Removing the flywheel (See Fig. 7, 8)

1. Remove the head amplifier & mechanism control P.C. board.

2. Remove the main motor assembly.

3. After turning over the cassette mechanism, remove the two slit washers and fixing the capstan shafts R and L, and pull out the flywheel (R) and (L) respectively from behind the cassette mechanism.

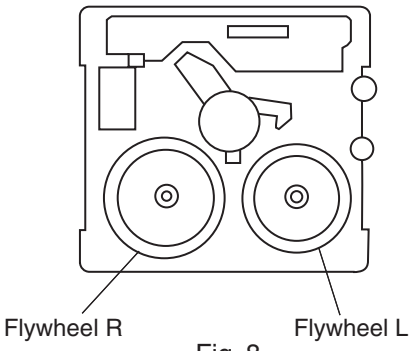


Fig. 8

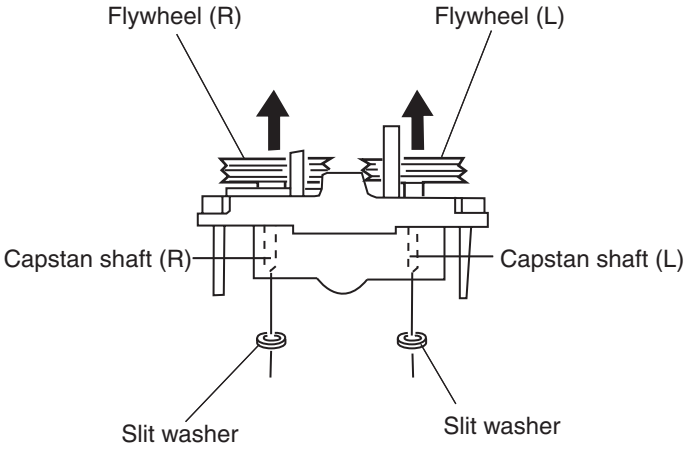


Fig. 7

■ Removing the reel pulse P.C. board and solenoid (See Fig. 9)

1. Remove the five pawls **a** to **e** reattaining the reel pulse board.

2. From the surface of the reel pulse board parts, remove the two pawls **f** and **g** retaining the solenoid.

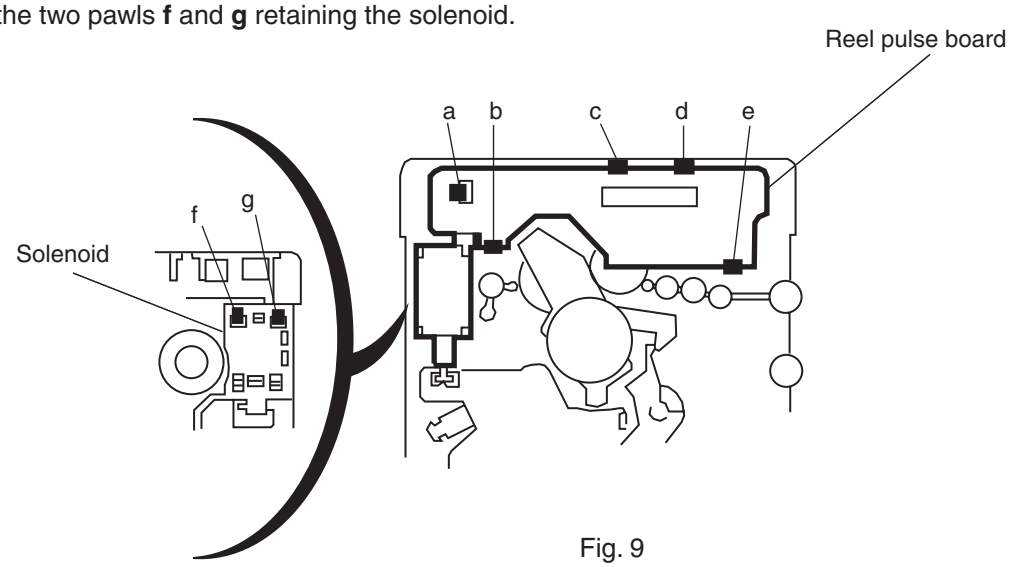


Fig. 9

Adjustment method

■ Measurement Instruments Required for Adjustment

1. Low frequency oscillator
   This oscillator should have a capacity to output 0dBs to 600 Ω at an oscillation frequency of 50Hz-20kHz.
2. Attenuator impedance : 600 Ω
3. Electronic voltmeter
4. Distortion meter
5. Frequency counter
6. Wow & flutter meter
7. Test tape
   VTT703L : Head azimuth
   VT712 : Tape speed and running unevenness (3kHz)
   VT724 : Reference level (1kHz)
8. Blank tape
   TYPE Ⅰ : AC-225
   TYPE Ⅱ : AC-514
9. Torque gauge : For play and back tension FWD(TW2111A), REV(TW2121a) and FF/REW(TW2231A)
10. Test disc: CTS-1000

■ Measurement conditions

Power supply voltage
AC120V (60Hz) : Ver.J,C
Reference output : Speaker : 0.775V/4Ω
: Headphone : 0.077V/32Ω
Reference frequency and
input level ---------- 1kHz, AUX : -8dBs
Measurement output terminal ------- at Speaker J3002
※ Load resistance ---------- 4Ω

● Radio Input signal

AM frequency ---------- 400Hz
AM modulation ---------- 30%
FM frequency ---------- 400Hz
FM frequency deviation ---------- 22.5kHz

● Tuner section

FM Band cover: 87.5～108MHz
MW Band cover: 522～1,629kHz
LW Band cover: 144～288kHz
Voltage applied to tuner ---------- +B : DC5.7V
VT : DC 12V
Reference measurement
output ---------- 26.1mV(0.28V)/3Ω
Input positions ------- AM : Standard loop antenna
FM : TP1 (hot) and TP2 (GND)

● Standard measurement position of volume

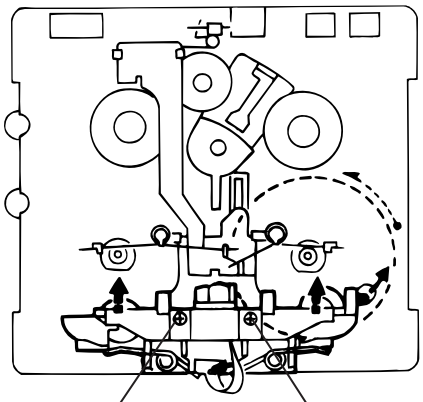
Function switch ---------- to Tape
Beat cut switch ---------- to Cut
Super Bass/Active hyper Bass ---------- to OFF
Bass Treble ---------- to Center
Adjustment of main volume to reference output
VOL : 28

Precautions for measurement

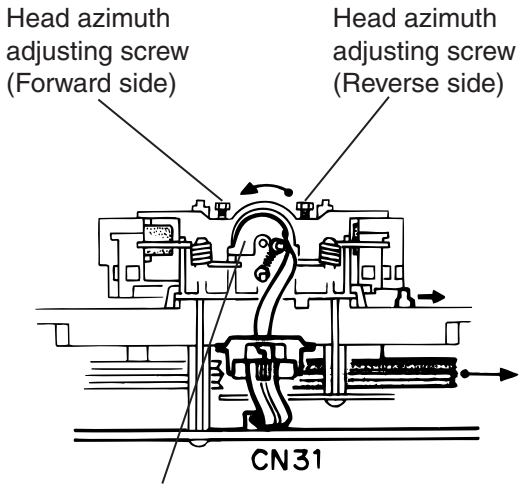
1. Apply 30pF and 33kΩ to the IF sweeper output side and 0.082μF and 100kΩ in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MIX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly carefully.
7. In the case of BTL connection amp., the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an BTL system.
8. For connecting a dummy resistor when measuring the output, use the wire with a greater code size.
9. Whenever any mixed tape is used, use the band pass filter (DV-12).

<<Arrangement of Adjusting Position>>

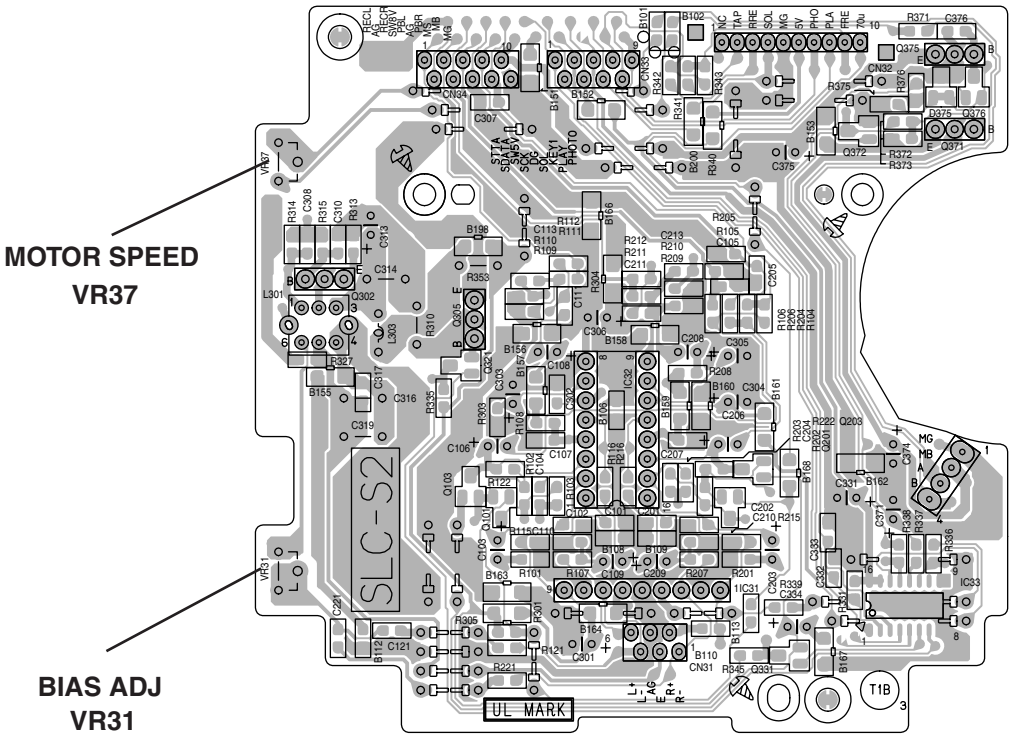
Cassette mechanism section



Cassette mechanism section (Back side)



Cassette AMP board



■ Tape Recorder Section

Items	Measurement conditions	Measurement method	Standard Values	Adjusting positions
Confirmation of head angle	Test tape : VTT703L (8kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 4Ω) : Headphone terminal	1 Playback the test tape VTT703L (8kHz) 2 With the recording & playback mechanism, adjust the head azimuth screw so that the forward and reverse output levels become maximum. After adjustment, lock the head azimuth at least by half turn. 3 In either case, this adjustment should be performed in both the forward and reverse directions with the head azimuth screw.	Maximum output	Adjust the head azimuth screw only when the head has been changed.
Confirmation of tape speed	Test tape : VT712 (3kHz) Measurement output terminal : Headphone terminal	Adjust VR37 so that the frequency counter reading becomes 2,940~3,090Hz ± when playing back the test tape VT712 (3kHz) with playback and recording mechanism after ending forward winding of the tape.	Tape speed of deck : 2,940 ~ 3,090Hz	VR37

■ Reference Values for Confirmation Items

Items	Measurement conditions	Measurement method	Standard Values	Adjusting positions
Difference between the forward and reverse speed	Test tape : VT712 (3kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 4 Ω) Measurement output terminal : Headphone	When the test tape VT712 (3kHz) has been played back with the recording and playback mechanism at the beginning of forward winding, the frequency counter reading of the difference between both of the mechanism should be 6.0Hz or less.	6.0Hz or less	Head azimuth screw
Wow & flutter	Test tape : VT712 (3kHz) Measurement output terminal : Headphone terminal	When the test tape VT712 (3kHz) has been played back with the recording and playback mechanism at the beginning of forward winding, the frequency counter reading of wow & flutter should be 0.25% or less (WRMS).	0.25% or less (WRMS)	

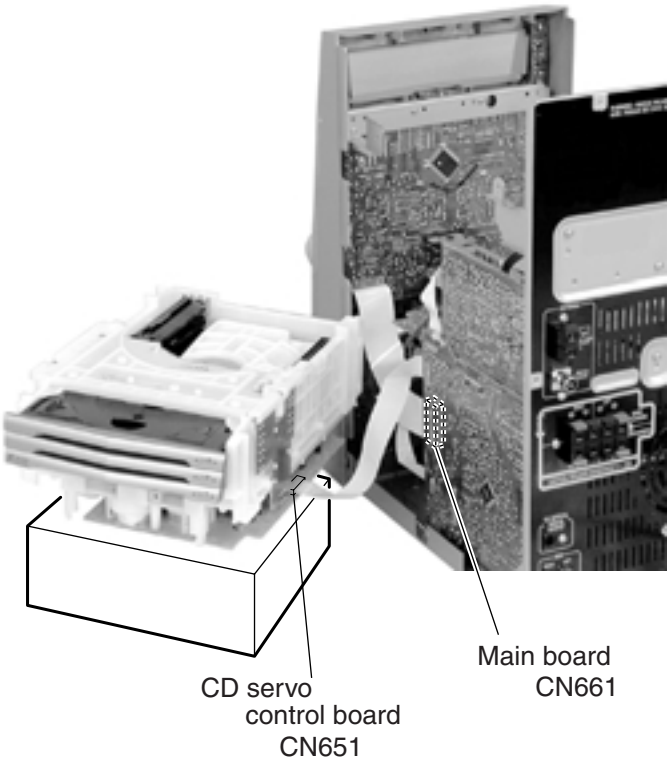
■ Electrical Performance

Items	Measurement conditions	Measurement method	Standard Values	Adjusting positions
Adjustment of recording bias current (Reference Value)	・Mode: Forward or reverse mode ・Recording mode ・Test tape : AC-514 to TYPE Ⅱ and AC-225 to TYPE Ⅰ Measurement output terminal : Both recording and headphone terminals	1 With the recording and playback mechanism, load the test tapes (AC-514 to TYPE Ⅱ and AC-225 to TYPE Ⅰ), and set the mechanism to the recording and pausing condition in advance. 2 After connecting 100 Ω in series to the recorder head, measure the bias current with a valve voltmeter at both of the terminals. 3 After resetting the [PAUSE] mode, start recording. At this time, adjust VR31 for Lch and VR32 for Rch so that the recording bias current values become 4.0 μA (TYPE Ⅰ) and 4.20 μA (TYPE Ⅱ).	AC-225 : 4.20 μA AC-514 : 4.0 μA	VR31
Adjustment of recording and playback frequency characteristics	Reference frequency : 1kHz and 10kHz (REF.: -20dB) Test tape : AC-514 to TYPE Ⅱ Measurement input terminal : OSC IN	1 With the recording and playback mechanism, load the test tapes (AC-514 to TYPE Ⅱ), and set the mechanism to the recording and pausing condition in advance. 2 While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and playback the rape. 3 While recording and playback the test tape in TYPE Ⅱ, adjust VR31 for Lch and VR32 for Rch so that the output deviation between 1kHz and 10kHz becomes -1dB±2dB.	Output deviation between 1kHz and 10kHz : -1dB±2dB	VR31

■ Reference Values for Electrical Function Confirmation Items

Items	Measurement conditions	Measurement method	Standard Values	Adjusting positions
Recording bias frequency	Forward or reverse ・Test tape : TYPE Ⅱ (AC-514) ・Measurement terminal : BIAS TP on P.C. board	1 While changing over to and from BIAS 1 and 2, confirm that the frequency is changed. 2 With the recording and playback mechanism, load the test tape. (AC-514 to TYPE Ⅱ), and set the mechanism to the recording and pausing condition in advance. 3 Confirm that the BIAS TP frequency on the P.C. board is 100kHz ± 6kHz.	100 kHz ±6 kHz	
Eraser current (Reference value)	Forward or reverse ・Recording mode ・Test tape : AC-514 to TYPE Ⅱ and AC-225 to TYPE Ⅰ Measurement terminal : Both of the eraser head terminals	1 While recording and playback mechanism, load the test tapes (AC-514 to TYPE Ⅱ and AC-225 to TYPE Ⅰ), and set the mechanism to the recording and pausing conditions in advance. 2 After setting to the recording conditions, connect 1W in series to the eraser head on the recording and playback mechanism side, and measure the eraser current from both of the eraser terminals.	TYPE Ⅱ : 120 mA TYPE Ⅰ : 75 mA	

■ Extension code connecting method



Flow of functional operation until TOC read

Power ON → Play Key → Slider turns REST SW ON.

Check Point: Confirm that the voltage at the pin5 of CN801 is "H"\"L"\"H".

Automatic tuning of TE offset

Laser ON → Check that the voltage at the pin40 of IC651 is + 5V?

Detection of disc

Automatic tuning of Focus offset

Automatic measurement of Focus S-curve amplitude → Confirm that the Focus error S-cuve signal at the pin28 of IC651 is approx.2Vp-p

Disc is rotated → Confirm that the signal from pin24 IC651 is 0V as a accelerated pulse during approx.400ms.

Focus servo ON (Tracking servo ON)

Automatic measurement of Tracking error amplitude → Confirm the waveform of the Tracking error signal. at the pin 25 of IC601 (R604) (See fig-1)

Automatic tuning of Tracking error balance

Automatic tuning of Focus error balance

Automatic tuning of Focus error gain

Automatic tuning of Tracking error gain

TOC reading → Confirm the eys-pattern at the lead of TP1

Play a disc

■ Tracking error waveform at TOC reading

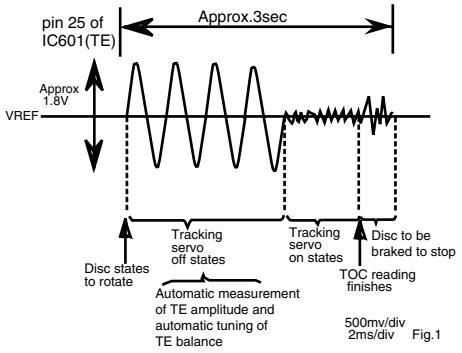


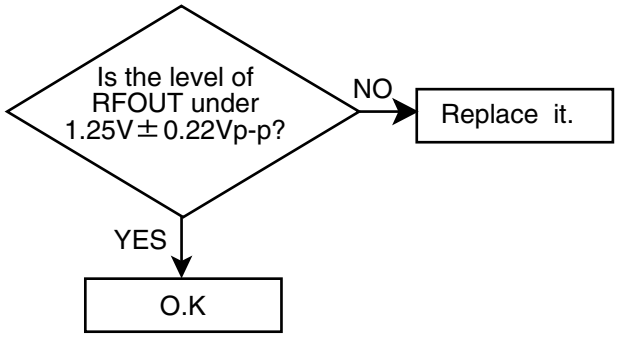
Fig.1

Maintenance of laser pickup

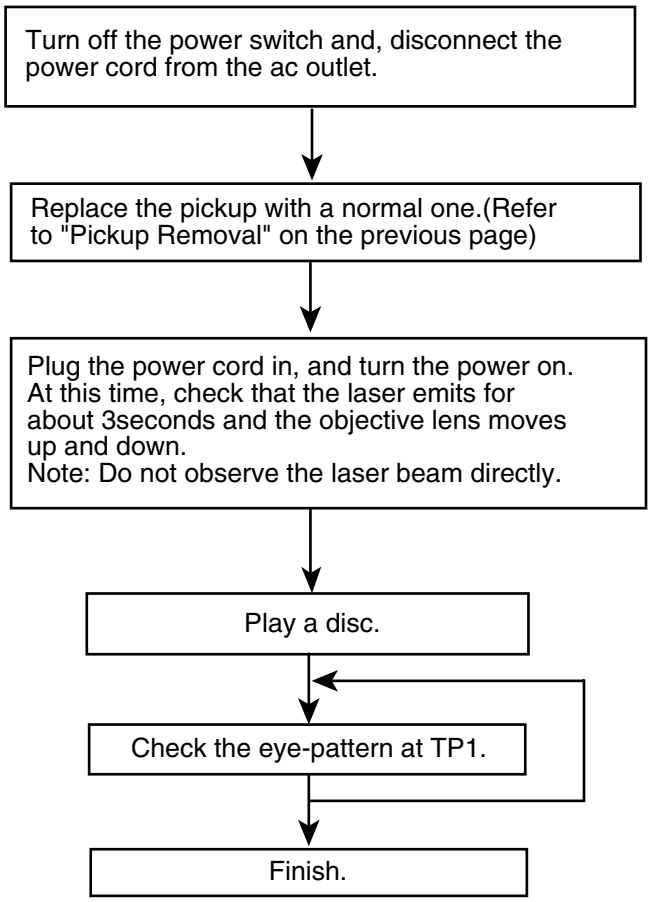
(1) Cleaning the pick up lens
Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

(2) Life of the laser diode
When the life of the laser diode has expired, the following symptoms will appear.

1. The level of RF output (EFM output : amplitude of eye pattern) will below.



Replacement of laser pickup

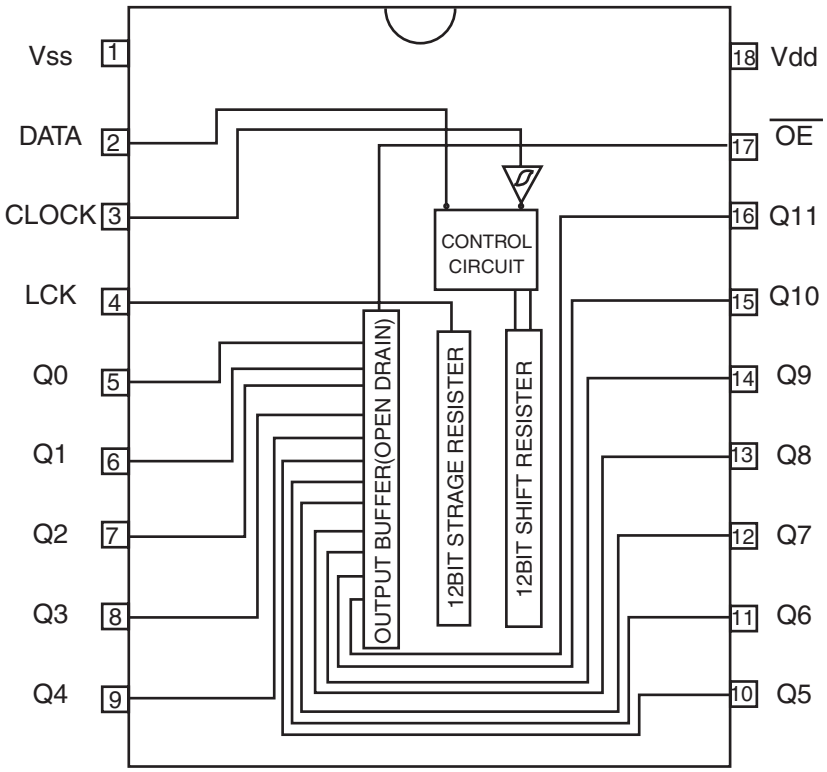

Turn off the power switch and, disconnect the power cord from the ac outlet.
Replace the pickup with a normal one.(Refer to "Pickup Removal" on the previous page)
Plug the power cord in, and turn the power on. At this time, check that the laser emits for about 3seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.
Play a disc.
Check the eye-pattern at TP1.
Finish.

(3) Semi-fixed resistor on the APC PC board
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.
If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

Description of major ICs

■ BU2092 (IC642) : Port expander

1.Pin Layout

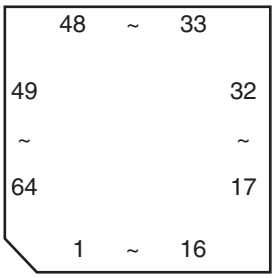


2.Pin function

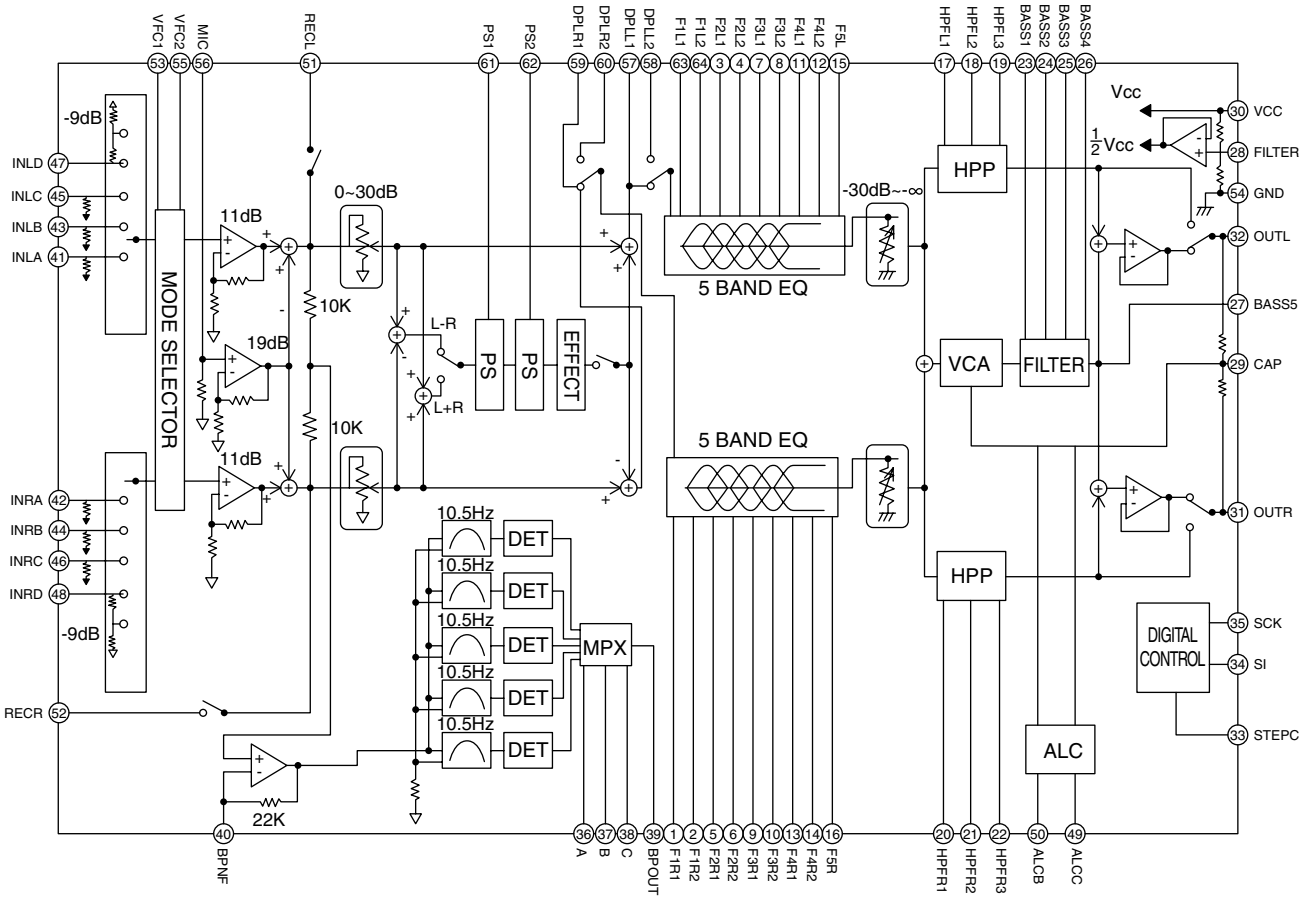
Pin No.	Symbol	I/O	Function
1	Vss	-	Connect to GND
2	DATA	I	Serial Data input
3	CLOCK	I	Shift Clock of Data
4	LCK	I	Latch Clock of Data
5~16	Q0~Q11	O	Parallel Data Output Latch Data: L / H OUTPUT: ON / OFF
17	$\overline{OE}$	I	Output Enable
18	Vdd	-	Power Supply

■ BH3874AKS (IC434) : Audio sound processor

1. Pin layout



2. Block diagram

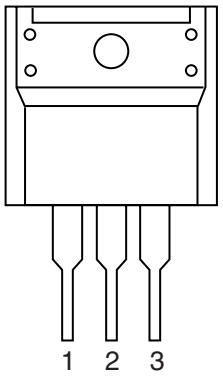


3. Pin function

Pin NO.	Name	Function	Pin NO.	Name	Function
1	F1R1	Rch GREQ f1 filter setting pin	34	SI	Serial data larch receiving pin
2	F1R2	Rch GREQ f1 filter setting pin	35	SCK	Serial clook receiving pin
3	F2L1	Lch GREQ f2 filter setting pin	36	A	Parallel data receiving pin
4	F2L2	Lch GREQ f2 filter setting pin	37	B	Parallel data receiving pin
5	F2R1	Rch GREQ f2 filter setting pin	38	C	Parallel data receiving pin
6	F2R2	Rch GREQ f2 filter setting pin	39	BPOUT	Output pin for spectrum analyzer
7	F3L1	Lch GREQ f3 filter setting pin	40	BPNF	Spectrum analyzer level setting pin
8	FAL2	Lch GREQ f3 filter setting pin	41	INLA	Lch input pin A
9	F3R1	Rch GREQ f3 filter setting pin	42	INRA	Rch input pin A
10	F3R2	Rch GREQ f3 filter setting pin	43	INLB	Lch input pin B
11	F4L1	Lch GREQ f4 filter setting pin	44	INRB	Rch input pin B
12	F4L2	Lch GREQ f4 filter setting pin	45	INLC	Lch input pin C
13	F4R1	Rch GREQ f4 filter setting pin	46	INRC	Rch input pin C
14	F4R2	Rch GREQ f4 filter setting pin	47	INLD	Lch input pin D
15	F5L	Lch GREQ f5 filter setting pin	48	INRD	Rch input pin D
16	F5R	Rch GREQ f5 filter setting pin	49	ALCC	Time constant of ALC setting pin
17	HPFL1	Lch high-pass filter setting pin	50	ALCR	ALC level setting pin
18	HPFL2	Lch high-pass filter setting pin	51	RECL	Lch RECOUT output pin
19	HPFL3	Lch high-pass filter setting pin	52	REOR	Rch RECOUT output pin
20	HPFR1	Rch high-pass filter setting pin	53	VFC1	Vocal fade filter setting pin
21	HPFR2	Rch high-pass filter setting pin	54	GND	Ground pin
22	HPFR3	Rch high-pass filter setting pin	55	VFC2	Vocal fade filter setting pin
23	BASS1	Dynamic bass filter setting pin	56	MIC	Input pin for microphone
24	BASS2	Dynamic bass filter setting pin	57	DPLL1	Lch output pin for DPL
25	BASS3	Dynamic bass filter setting pin	58	DPLL2	Lch input pin for DPL
26	BASS4	Dynamic bass filter setting pin	59	DPLR1	Rch output pin for DPL
27	BASS5	Biamp output pin	60	DPLR2	Rch input pin for DPL
28	FILTER	VCC/2 pin	61	PS1	Surround setting pin
29	CAP	ALC trap frequency setting pin	62	PS2	Surround setting pin
30	VCC	Power supply pin	63	F1L1	Lch GREQ f1 filter setting pin
31	OUTR	Rch output pin	64	F1L2	Lch GREQ f1 filter setting pin
32	OUTL	Lch output pin			
33	STEPC	Time conatant attachment for switching shook protection			

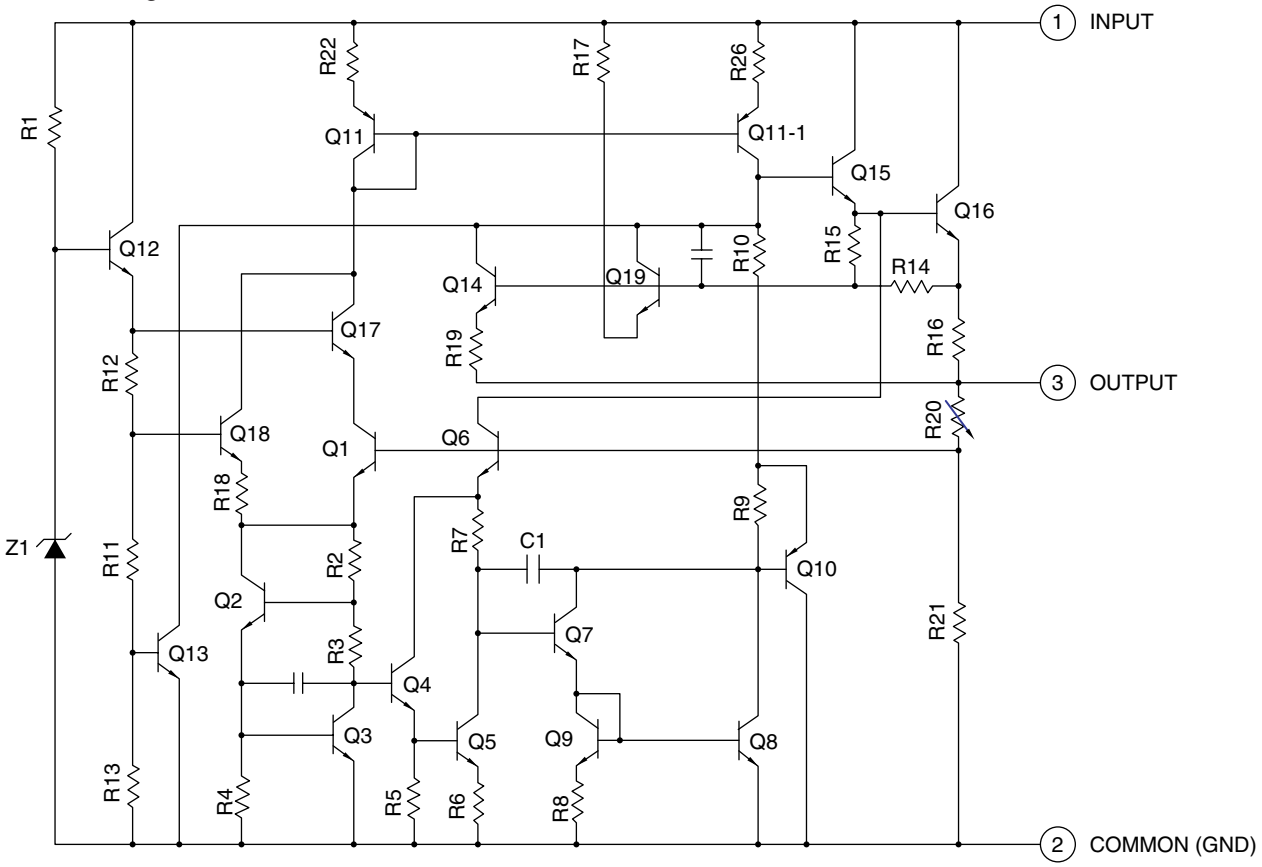
■ KIA7805API (IC360) : Regulator

1. Pin layout



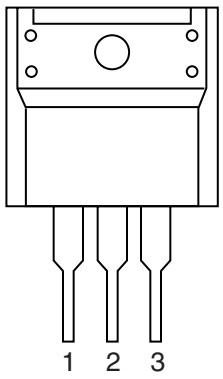
1.VCC
2.GND
3.OUTPUT

2.Block diagram



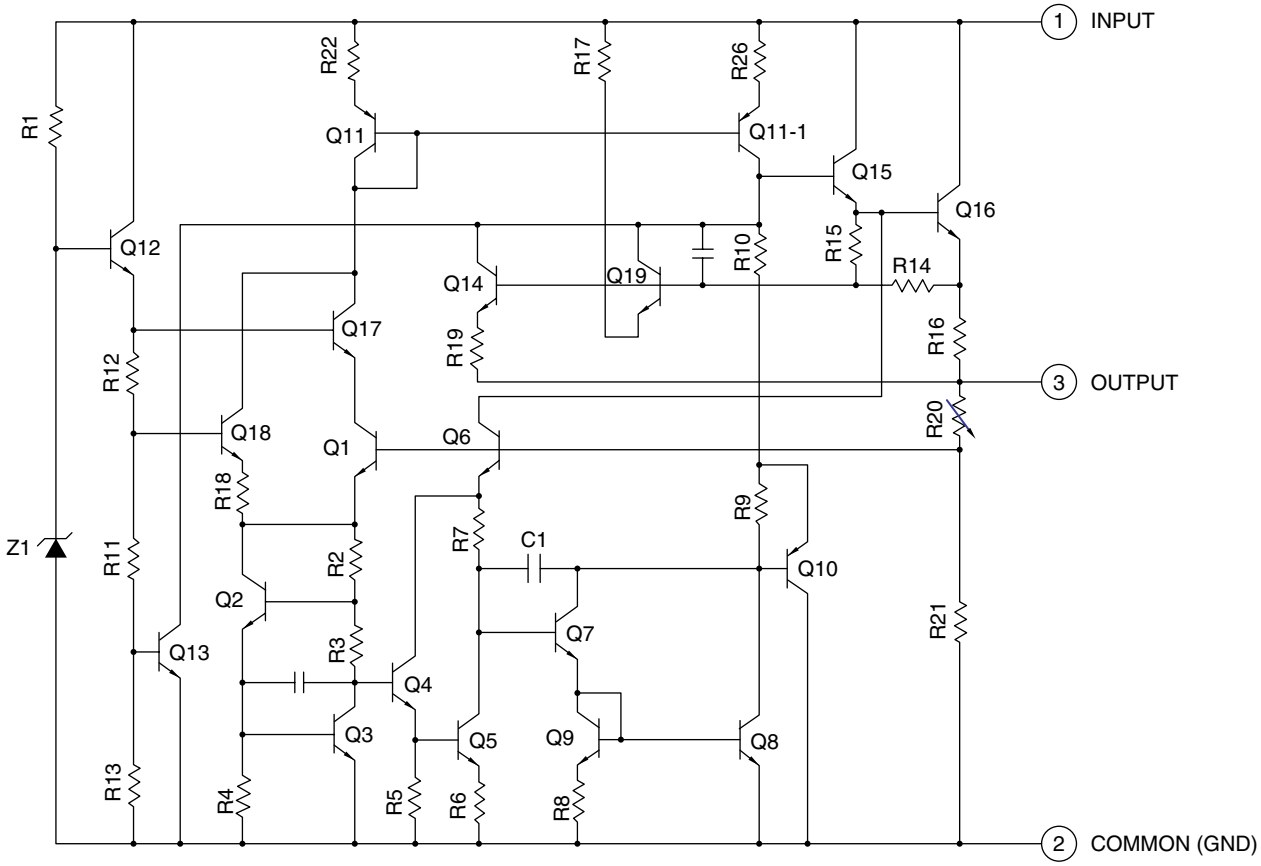
■ KIA7808API (IC303) : Regulator

1. Pin layout



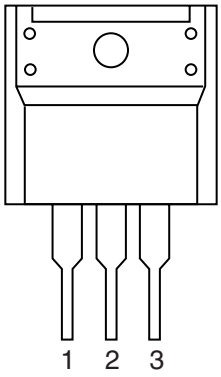
1.VCC
2.GND
3.OUTPUT

2.Block diagram



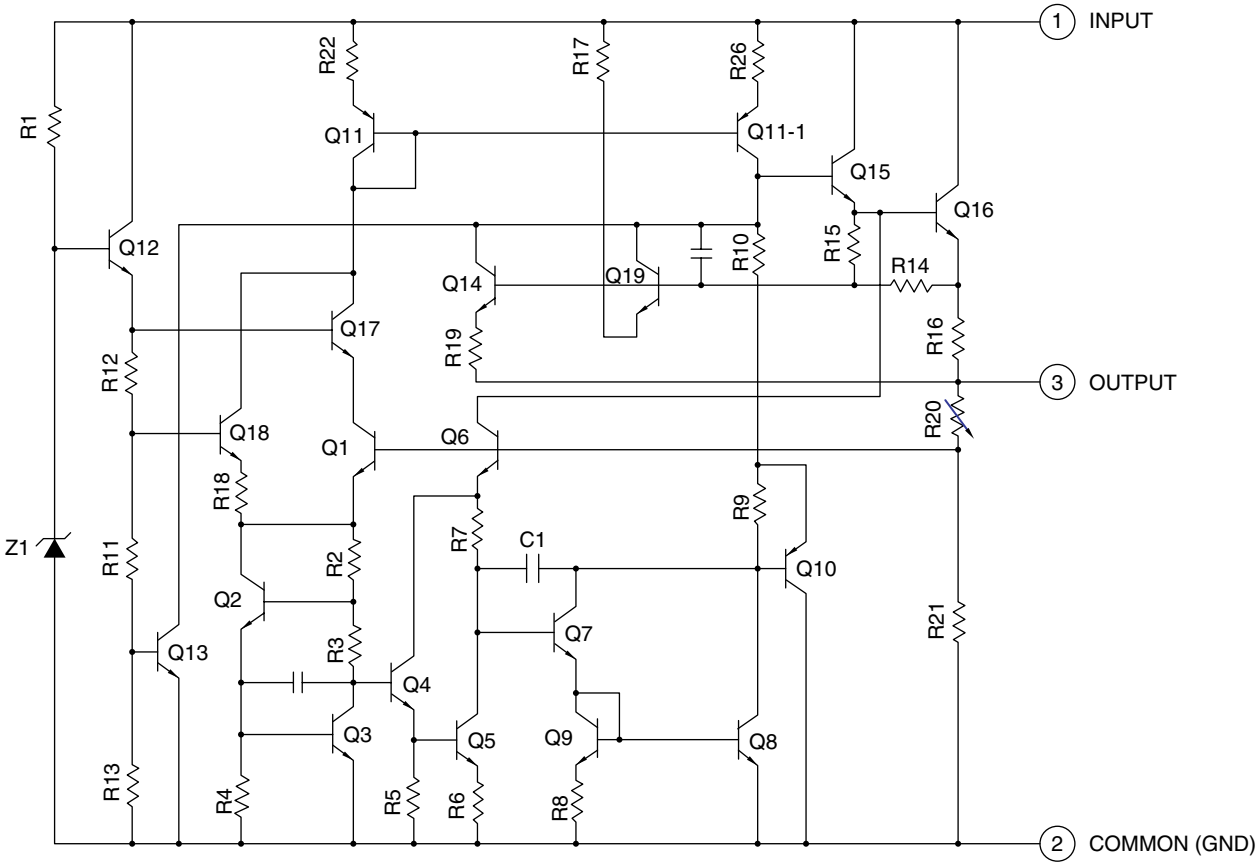
■ KIA7812API (IC240) : Regulator

1. Pin layout



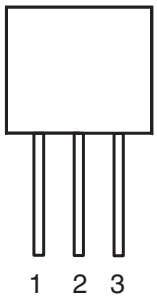
1.VCC
2.GND
3.OUTPUT

2.Block diagram



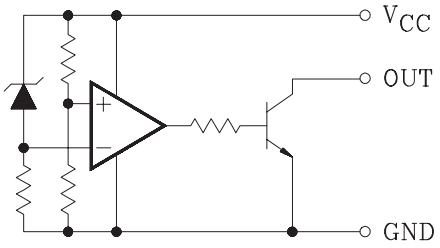
■ KIA7042AP-T (IC830) : Regulator

1. Pin layout



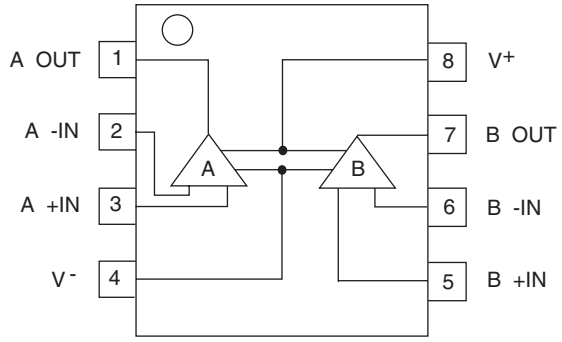
1.VCC
2.GND
3.OUT

2. Block diagram



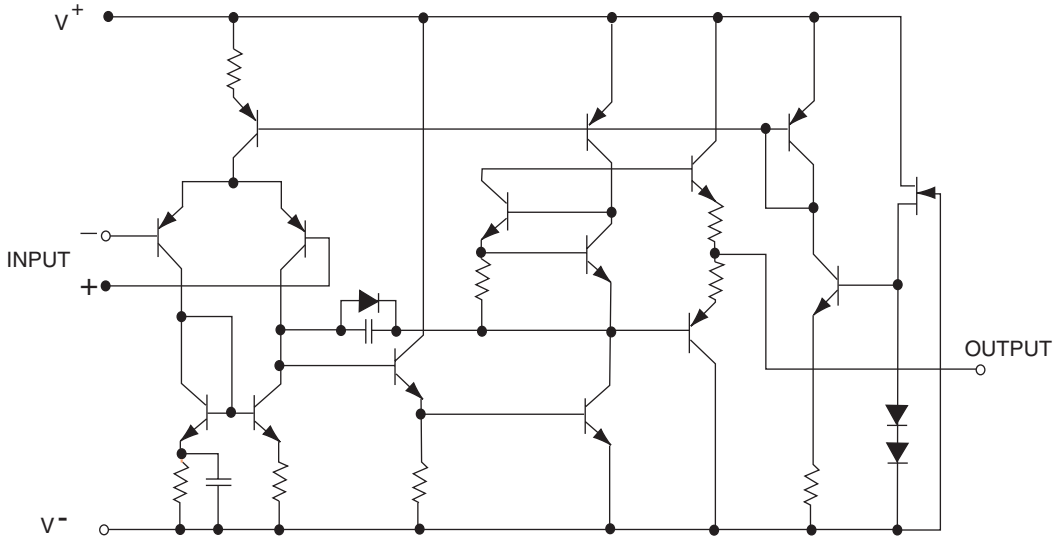
■ NJM4580D (IC501, IC502, IC571) : LPF, Mic and H.phone amp.

1. Pin layout

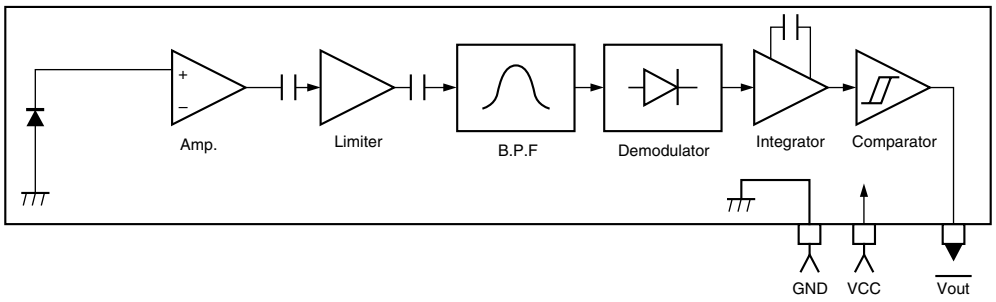


(TOP VIEW)

2. Block diagram

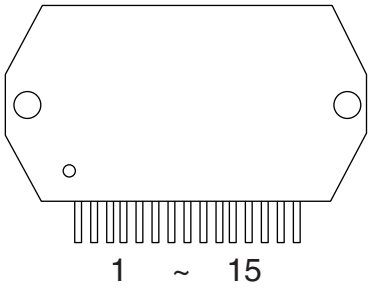


■GP1U271XK (IC951) : Receiver for remote

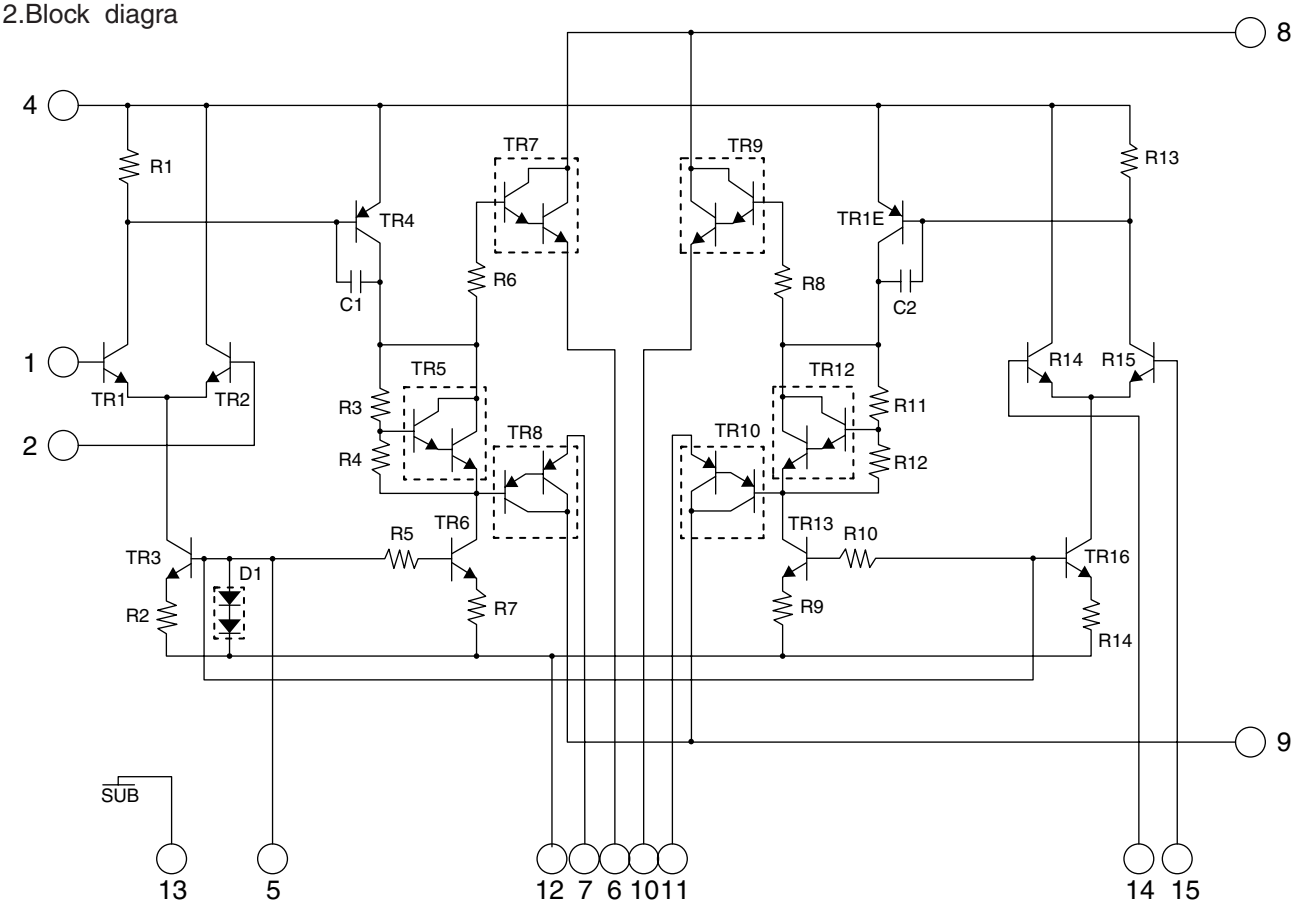


■ STK402-050 (IC602) : 2ch AF power amp.

1.Pin layout

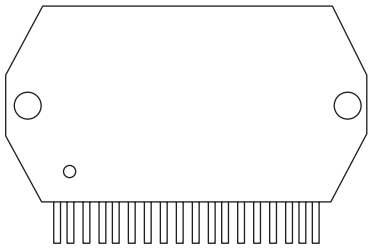


2.Block diagra

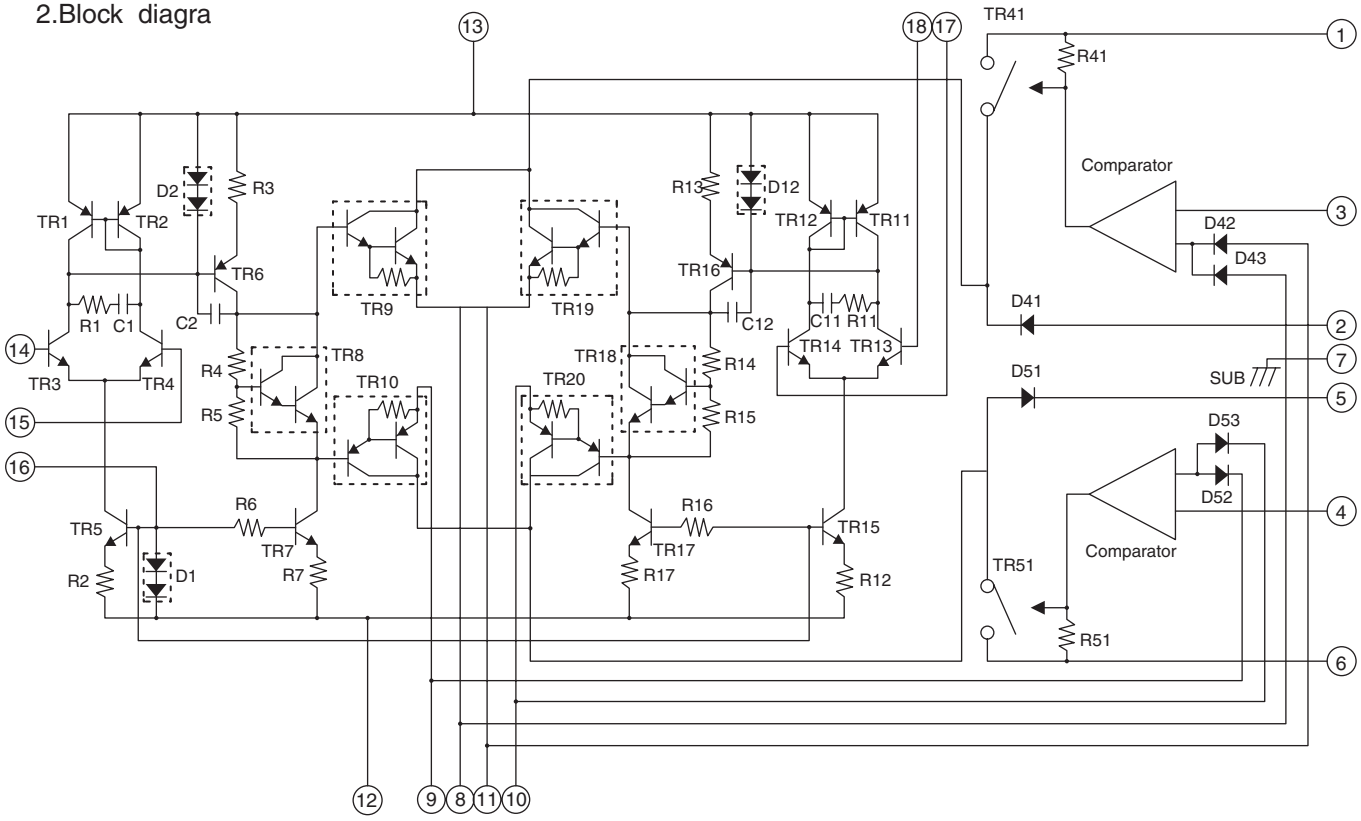


■ STK402-010 (IC701) : 2ch AF power amp.

1.Pin layout

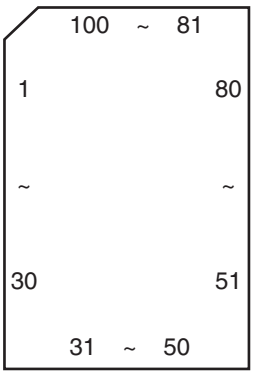


2.Block diagra



■ UPD784975AGF303 (IC810) : Main micon

1. Pin layout

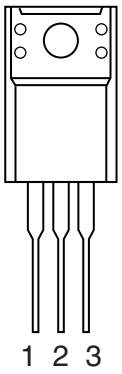


2. Pin function

Pin NO.	Name	I/O	Function	Pin NO.	Name	I/O	Function
1	AVDD	-	AD VDD, same as VDD1	36	SPI A	I/O	SPI A data
2	SPIDTI	I	SPI analog input	37	SPI B	I/O	SPI B data
3	MSI	I	Music scan input	38	SPI C	I/O	SPI C data
4	MPX	I	Tuner stereo indicator	39	PBMUTE	I/O	Playback mute
5	H/P	I	SW vol IC btw bi-amp & dyn & off relay	40	VSS0	-	
6	KEY1	I	Key 1 input	41	VDD0	-	
7	KEY2	I	Key 2 input	42	$\overline{\text{RESET}}$	I	Micom reset
8	KEY3	I	Key 3 input	43	INH	I/O	Back-up mode detect
9	VOL-	I	Volume decrease	44	LATCH	I/O	Latch for vol IC
10	VOL+	I	Volume increase	45	VOLCK	I/O	Volume clock
11	SLCPLAY	I	SLC detect play	46	VOLDA	I/O	Volume data
12	SLCKEY	I	SLC key input	47	RELAY	I/O	Relay out
13	PHOTO A	I	SLC photo A	48	POUT	I/O	Power on
14	AVSS	-	AD VDD, same as VSS1	49	ECON	I/O	Ecology mode
15	VSS1	-	GND	50	$\overline{\text{PRT}}$	I/O	Protector in
16	X1	I	Oscillation	51	AUXMUTE	O	Auxmute
17	X2	-	Oscillation	52	TUCE	O	Tuner chip enable
18	VDD1	-		53		O	Available pin
19	IC(VPP)	-	Connect to VSS1	54		O	Available pin
20	VC3RESET	I/O	VC3 reset	55	EXTDA	O	External IC data
21	MSTAT	I/O	VC3 status input	56	EXTCK	O	External IC clock
22	KCMND	I/O	VC3 KCMND(serial data)	57	EXTCE	O	External IC strobe
23	RDS DATA	I/O	RDS data	58	OEEXT	O	Output enable for external IC
24	RDS CK	INT	RDS clock	59	VOLLED	I/O	Volume led
25	BUZZER	I/O	Buzzer on	60	FSEARCH	I/O	Forward skip
26	REMIN	INT	Remocon input	61	RSEARCH	I/O	Reverse skip
27	SMUTE	I/O	System mute	62~78	S21~S5	I/O	FL segment
28	SLCCE	I/O	SLC chip enable	79	VDD2	I/O	
29	CK	I/O	SLC / tuner clock	80	VLOAD	I/O	Negative power supply(-30V)
30	DATA OUT	I/O	SLC / tuner data out	81~84	S4~S1	I/O	FL segment
31	DATA IN	I/O	Tuner data in	85~100	G16~G1	I/O	FL display grid
32	SM-	I/O	Soundmode reverse				
33	SM+	I/O	Soundmode forward				
34	ECHO1	I/O	Echo 1 data				
35	ECHO2	I/O	Echo 2 data				

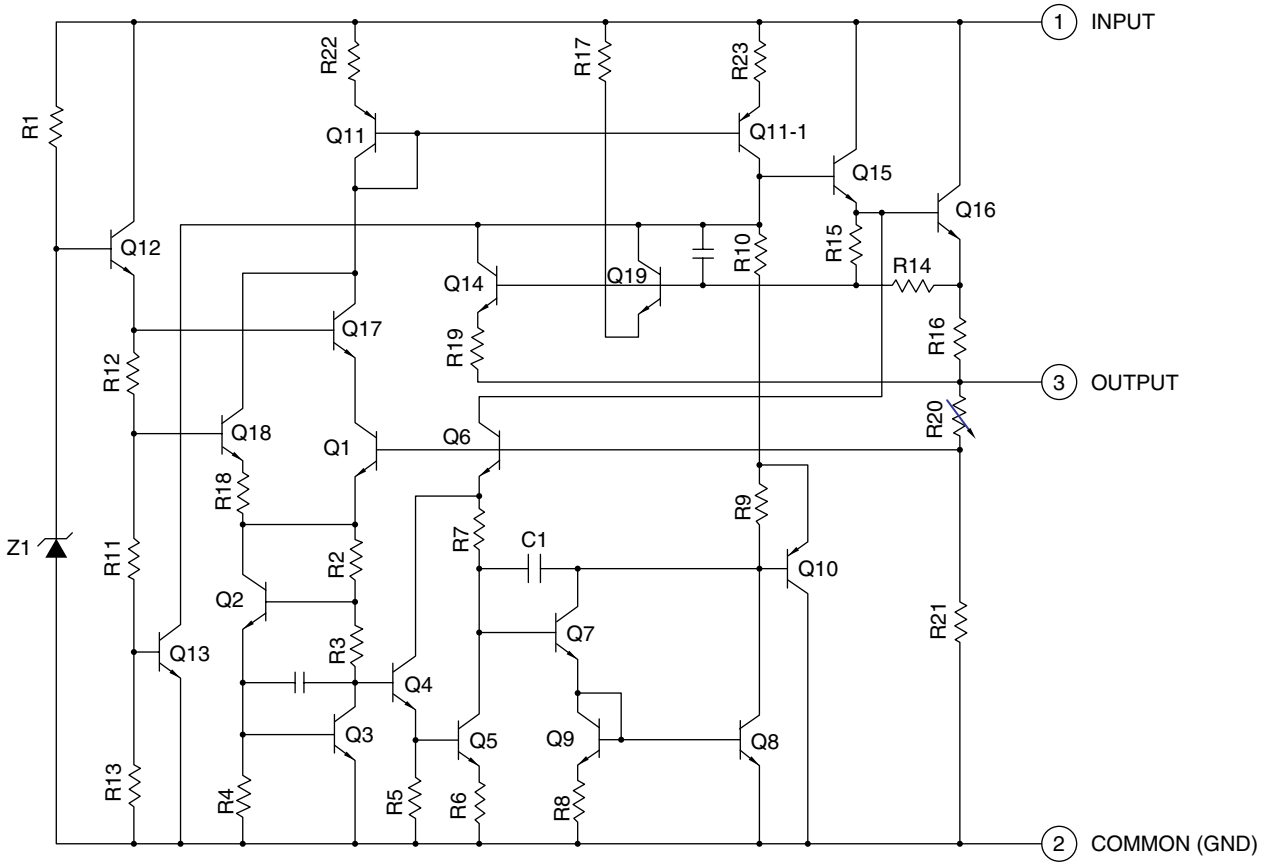
■ KIA7809API (IC305) : Regulator

1.Pin layout



1.INPUT
2.COMMON
3.OUTPUT

2.Block diagram

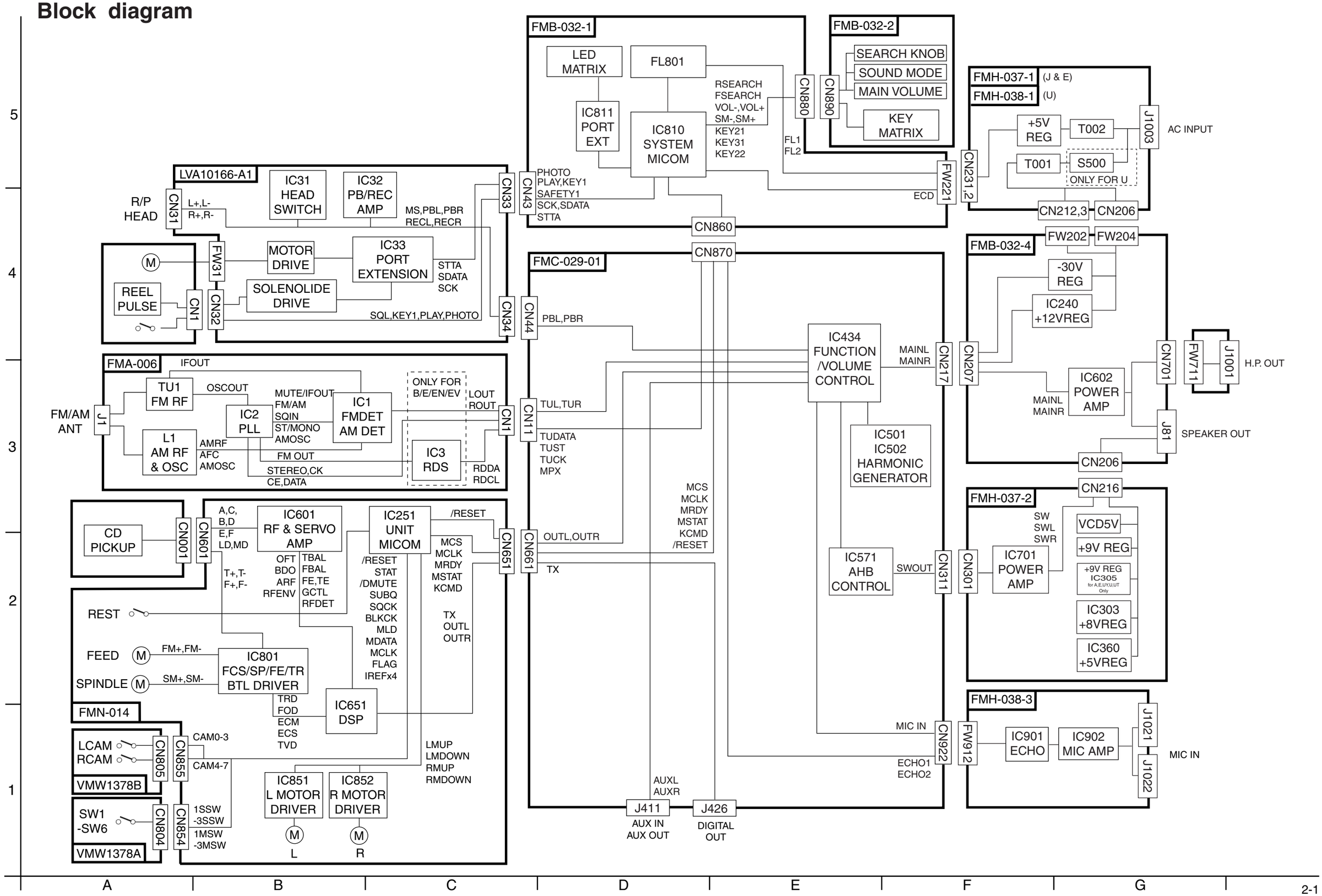


JVC

VICTOR COMPANY OF JAPAN, LIMITED
AUDIO & COMUNICATION BUSINESS DIVISION
PERSONAL & MOBILE NETWORK BUSINESS UNIT. 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

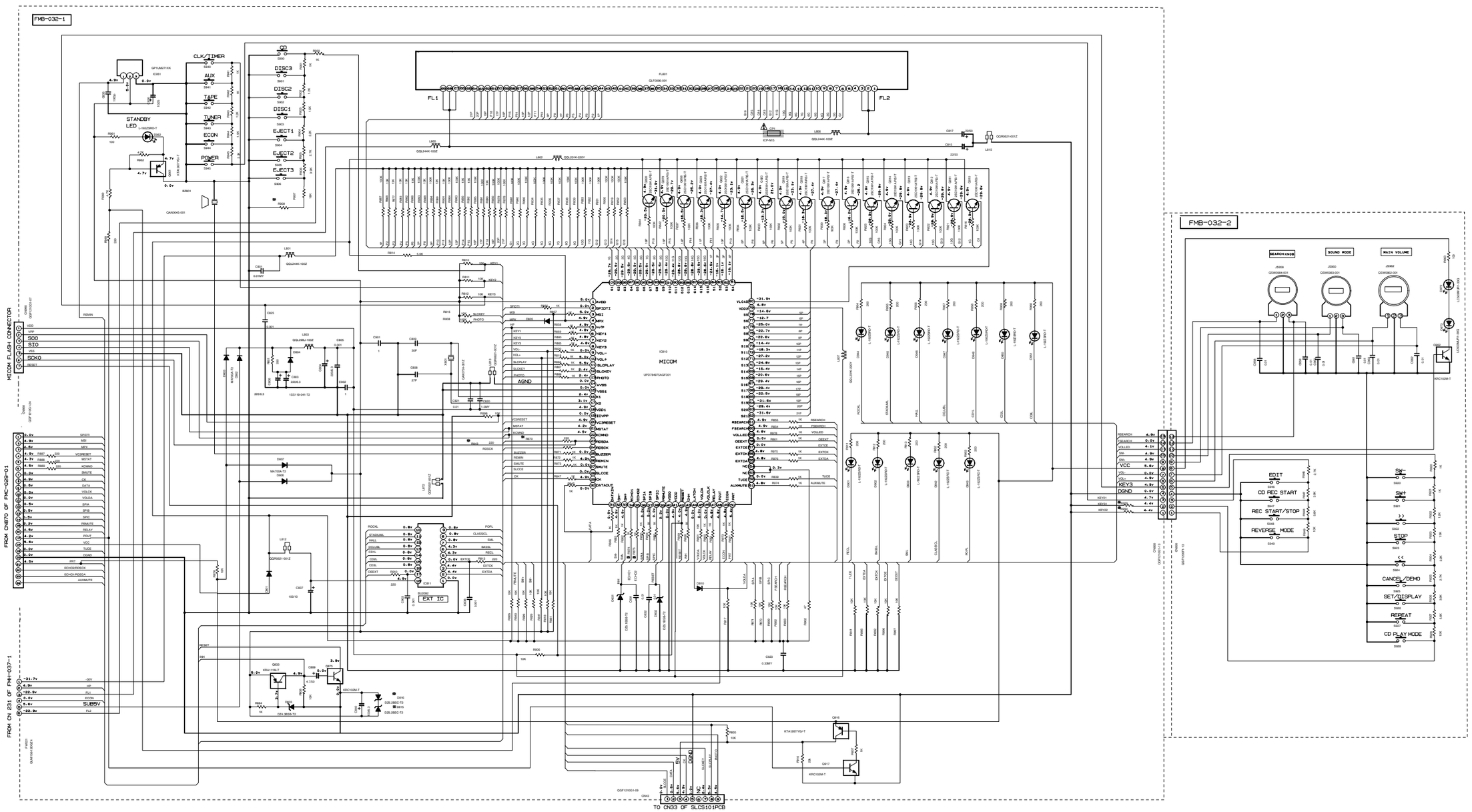
(No.21114) 200207

Block diagram



Standard schematic diagrams

■ Front circuit



MARK	HXZ-1							HXZ-3						
	B.E.EN.EV	A	J.C	U.UJ.UT.UW	UY			B.E.EN.EV	A	J.C	U.UJ.UT.UW	UY		
R909	330K	330K	330K	330K	330K			75K	75K	75K	75K	75K		
R929	75K	330K	330K	330K	75K			75K	330K	330K	330K	75K		
R950	330K	18K	330K	75K	75K			330K	18K	330K	75K	75K		
R843.R870	USE	NONE	NONE	NONE	NONE			USE	NONE	NONE	NONE	NONE		
R874.R875	NONE	NONE	NONE	USE	USE			NONE	NONE	NONE	USE	USE		
D815.D816	DZ6.2BSC-T2	DZ6.2BSC-T2	NONE	NONE	NONE			DZ6.2BSC-T2	DZ6.2BSC-T2	NONE	NONE	NONE		

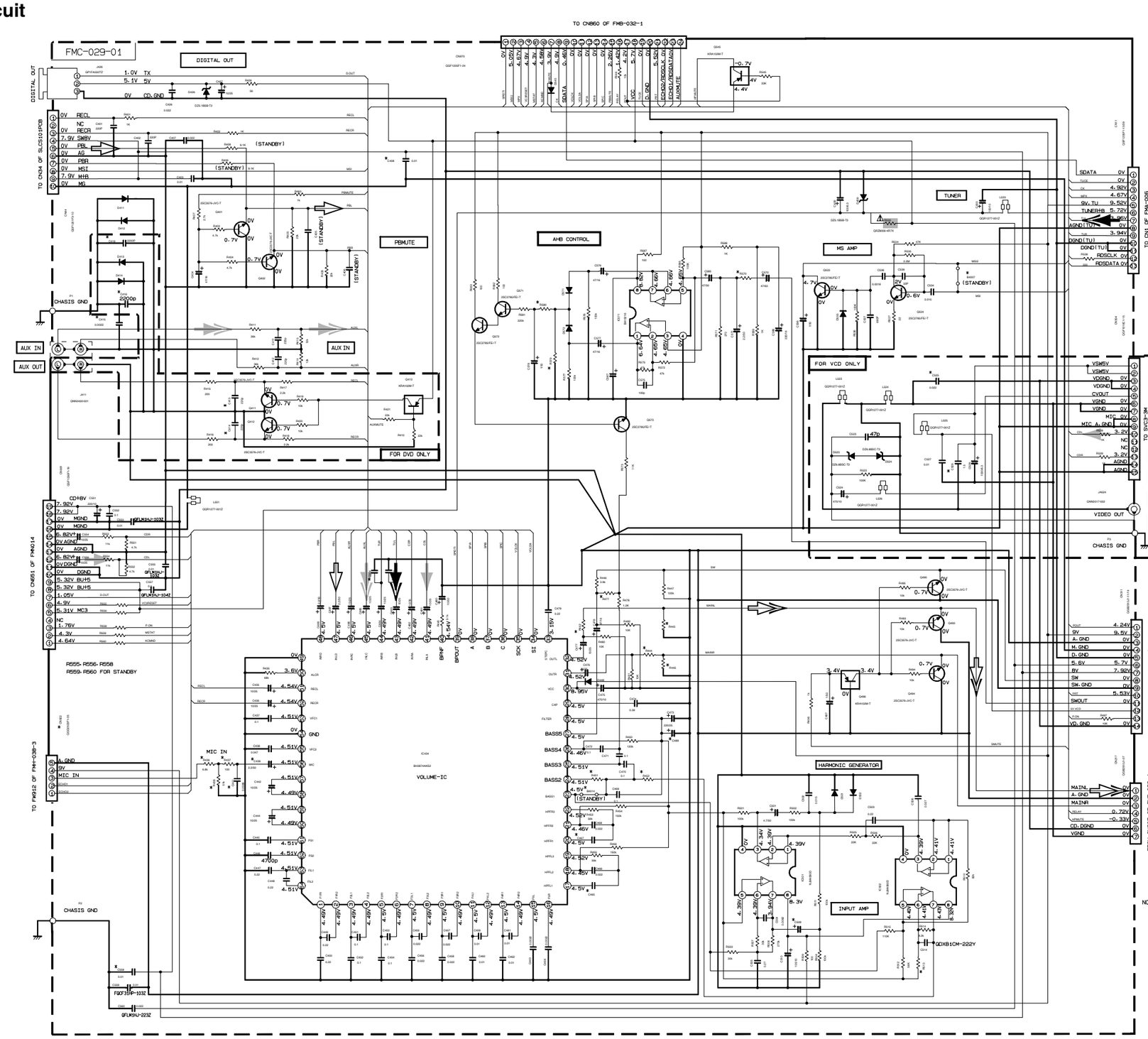
NOTE: FOR VCD MODEL C840 CHANGE TO 100/10 AND REPLACE BB150 BY 68 OHM RESISTOR

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION —— AUX MODE, VOL MIN, BASS OFF
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/4W ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHMS Ω.
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(μ=μ).
   ALL INDUCTANCE VALUES ARE IN mH(m=m).
   ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
   ALL DIODE ARE 1SS119-041-T2
   ALL TACT SWITCH ARE GEM0674-001Z

■Main circuit



MARK ※					
MODEL	HXZ1 & HXZ3				
VERSION	J/C	B/E EN/EV	A	UT/UW U/UJ	UY
C408	NONE	FQCF31HP-103Z		NONE	
C558	NONE	FQCF31HP-103Z		NONE	
C563	NONE	GDYB1CM-103Y		NONE	
C564	NONE	GDYB1CM-103Y		NONE	
R477	GRE141J-123Y	GRE141J-123Y		GRE141J-682Y	
R538	NONE	GRE141J-221Y	NONE	NONE	
CN922	NONE	NONE		GSD2503F1-05	NONE
CN870	GQF1205F1-21	GQF1205F1-23	GQF1205F1-21	GQF1205F1-21	GQF1205F1-21
CN11	GQF1205F1-09	GQF1205F1-13	GQF1205F1-09	GQF1205F1-09	GQF1205F1-09
R436	NONE	NONE		GRE141J-682Y	NONE
R437	NONE	NONE		GRE141J-101Y	NONE
R438	NONE	NONE		GRE141J-513Y	NONE
C439	NONE	NONE		GETN1HM-225Z	NONE
C441	NONE	NONE		GFLM1HJ-682Z	NONE

MARK ※		
MODEL	HX-Z1	HX-Z3
VERSION	J/C/A/B/E/EN UT/UW/U/UJ/UY	J/C/A/B/E/EN UT/UW/U/UJ/UY
R442	GRE141J-682Y	GRE141J-472Y
R443	GRE141J-243Y	GRE141J-103Y
R444	GRE141J-682Y	GRE141J-472Y
R445	GRE141J-243Y	GRE141J-103Y
R451	GRE141J-183Y	GRE141J-153Y
R452	GRE141J-682Y	GRE141J-822Y
R513	GRE141J-103Y	GRE141J-822Y
R570	GRE141J-562Y	GRE141J-622Y
R579	GRE141J-154Y	GRE141J-224Y
R580	GRE141J-682Y	GRE141J-223Y
C465	GQF32AJ-223Z	GFZ0160-223Z
C467	GQF32AJ-223Z	GFZ0160-223Z
C489	——	GTE1CD6-476Z
C509	GETN1HM-475Z	GETN1CM-106Z

	REFERENCE NUMBER POSITION
TAPE	401 – 409
AUX IN	410 – 421
DIGITAL OUT	426 – 427
VOLUME IC	434 – 489
SUPPLY	493 – 497
HARMONIC GENERATOR	501 – 515
VCD	523 – 529
TUNER	533 – 539
TO FMB	545 – 548
VIDEO	551 – 560
AHB CONTROL	570 – 588

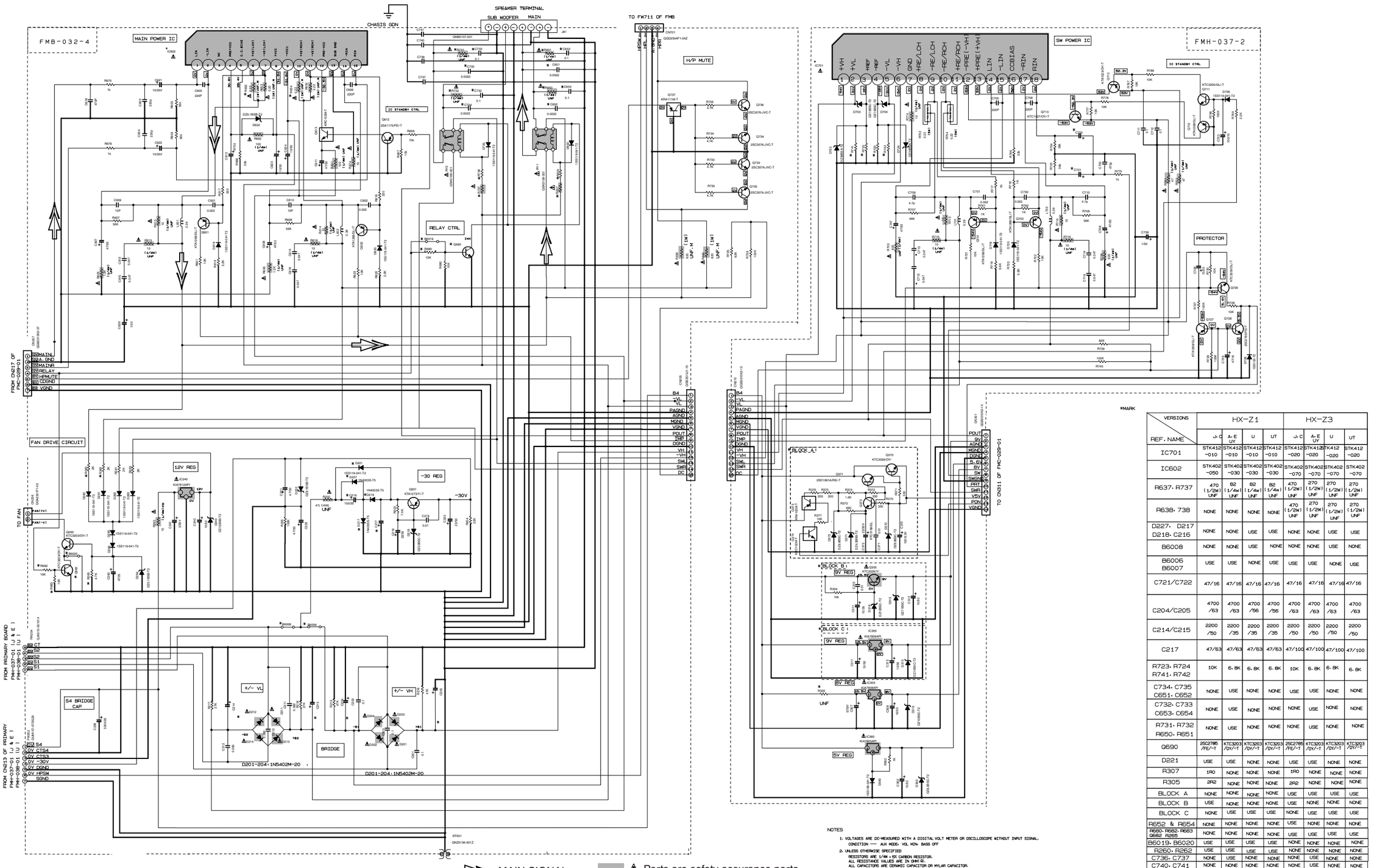
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION —— AUX MODE· VOL MIN· SUBWOOFER VOL 1.
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/4W ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN Ω(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(μF).
   ALL INDUCTANCE VALUES ARE IN μH(μH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
   ALL DIODES ARE 1SS119-041-T2

CD SIGNAL
AUX SIGNAL
MAIN SIGNAL
TAPE P. B. SIGNAL
FM/TUNER SIGNAL

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

■ Power amplifier & Power supply circuit



MAIN SIGNAL

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

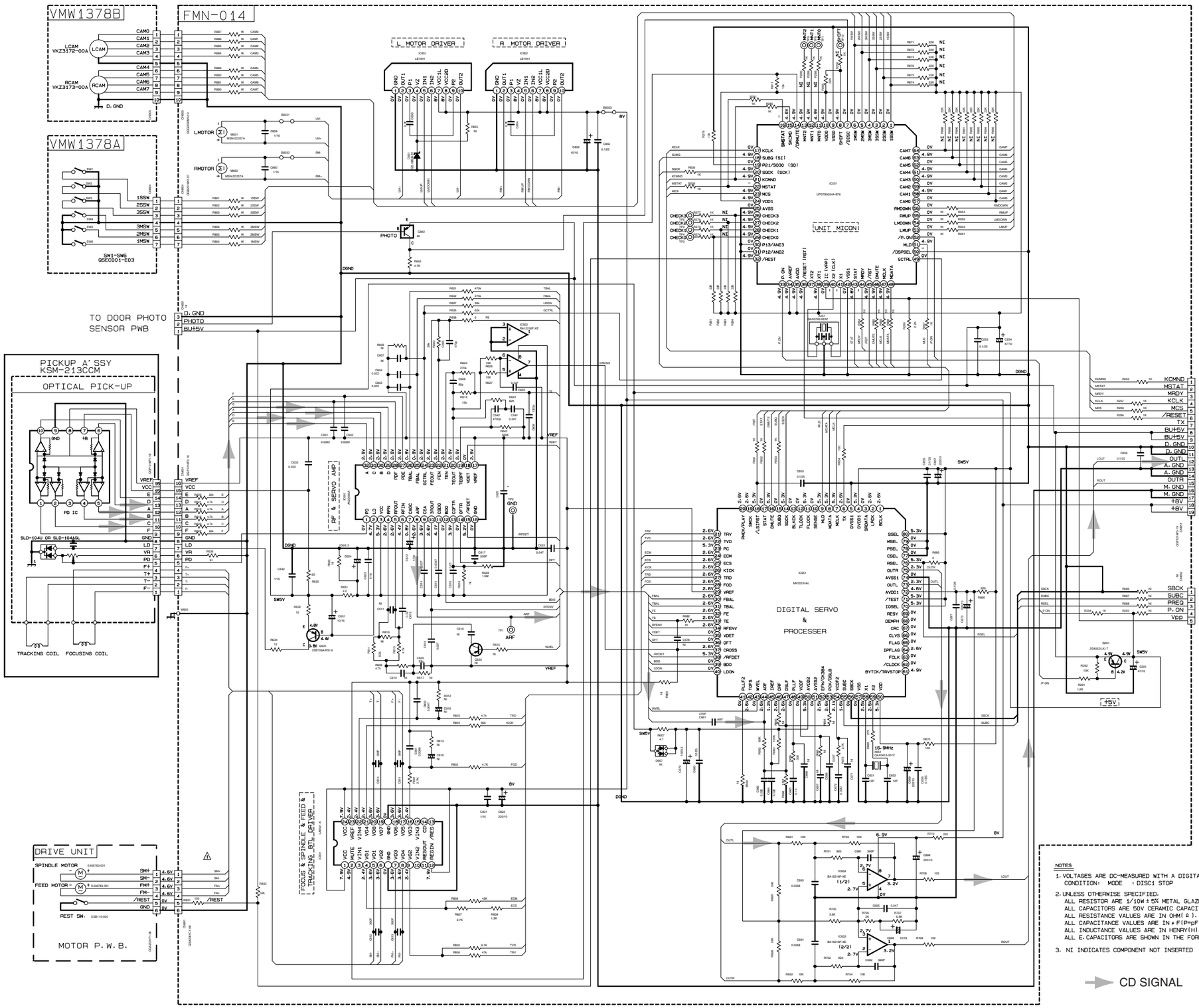
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION ---- AUX MODE: VOL MIN: BASS OFF
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHMS Ω.
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN #F(=μF).
   ALL INDUCTANCE VALUES ARE IN ₰(=mH).
   ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).

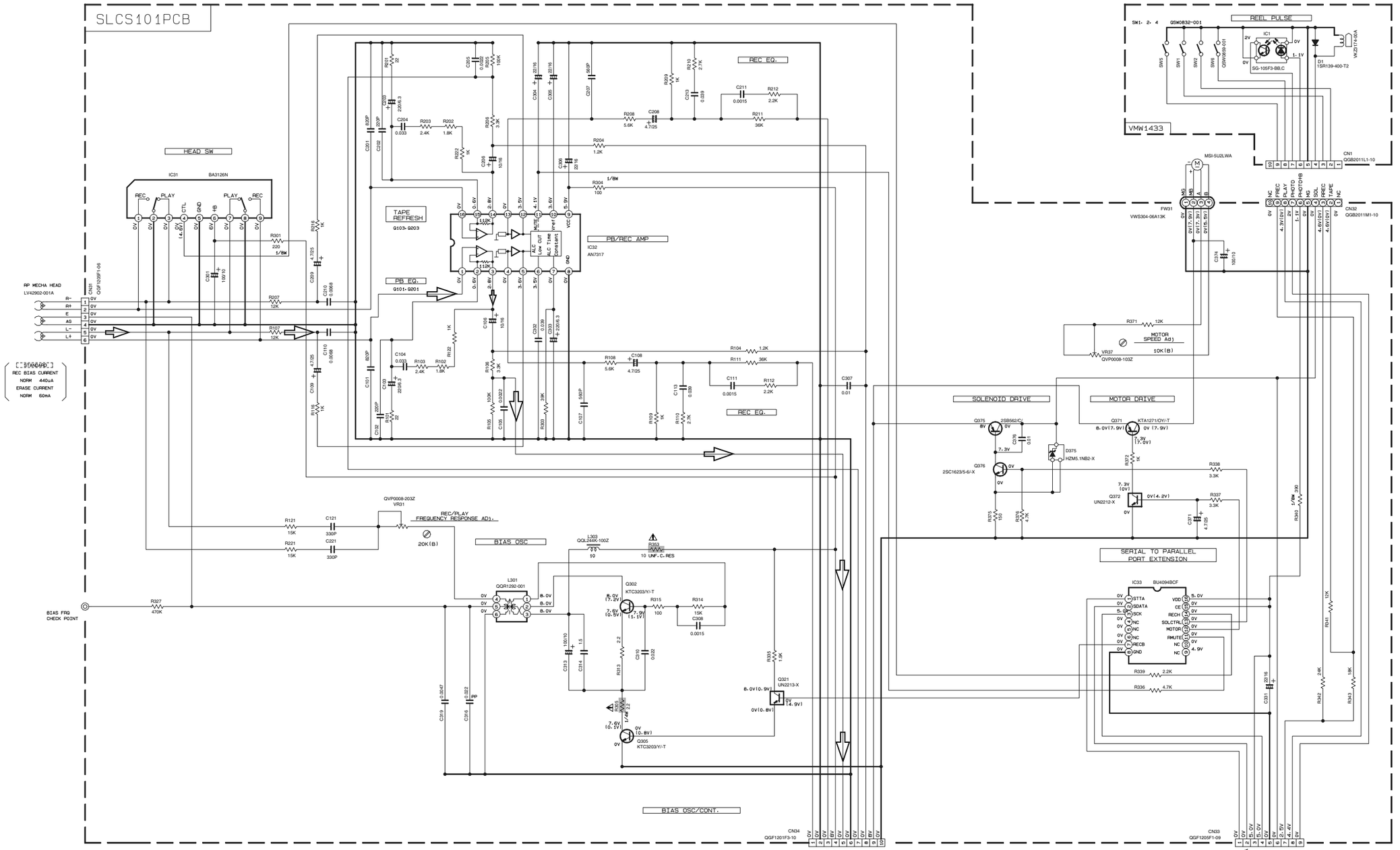
*MARK

REF. NAME \ VERSIONS	HX-Z1				HX-Z3			
	J, C	A, E UY	U	UT	J, C	A, E UY	U	UT
IC701	STK412 -010	STK412 -010	STK412 -010	STK412 -010	STK412 -020	STK412 -020	STK412 -020	STK412 -020
IC602	STK402 -050	STK402 -030	STK402 -030	STK402 -030	STK402 -070	STK402 -070	STK402 -070	STK402 -070
R637, R737	470 (1/2W) UNF	82 (1/4W) UNF	82 (1/4W) UNF	82 (1/4W) UNF	470 (1/2W) UNF	270 (1/2W) UNF	270 (1/2W) UNF	270 (1/2W) UNF
R638, 738	NONE	NONE	NONE	NONE	470 (1/2W) UNF	270 (1/2W) UNF	270 (1/2W) UNF	270 (1/2W) UNF
D227, D217 D218, C216	NONE	NONE	USE	USE	NONE	NONE	USE	USE
B6008	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE
B6006 B6007	USE	USE	NONE	USE	USE	USE	NONE	USE
C721/C722	47/16	47/16	47/16	47/16	47/16	47/16	47/16	47/16
C204/C205	4700 /63	4700 /63	4700 /56	4700 /56	4700 /63	4700 /63	4700 /63	4700 /63
C214/C215	2200 /50	2200 /35	2200 /35	2200 /35	2200 /50	2200 /50	2200 /50	2200 /50
C217	47/63	47/63	47/63	47/63	47/100	47/100	47/100	47/100
R723, R724 R741, R742	10K	6.8K	6.8K	6.8K	10K	6.8K	6.8K	6.8K
C734, C735 C651, C652	NONE	USE	NONE	NONE	USE	USE	NONE	NONE
C732, C733 C653, C654	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE
R731, R732 R650, R651	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE
Q690	2SC2785 /FE/-T	KTC3003 /GY/-T	KTC3003 /GY/-T	KTC3003 /GY/-T	2SC2785 /FE/-T	KTC3003 /GY/-T	KTC3003 /GY/-T	KTC3003 /GY/-T
D221	USE	USE	NONE	NONE	USE	USE	NONE	NONE
R307	1R0	NONE	NONE	NONE	1R0	NONE	NONE	NONE
R305	2R2	NONE	NONE	NONE	2R2	NONE	NONE	NONE
BLOCK A	NONE	NONE	NONE	NONE	USE	USE	USE	USE
BLOCK B	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE
BLOCK C	NONE	USE	USE	USE	NONE	USE	USE	USE
R652 & R654	NONE	NONE	NONE	NONE	USE	NONE	NONE	NONE
R680, R682, R683 R682, R685	NONE	NONE	NONE	NONE	USE	USE	USE	USE
B6019, B6020	USE	USE	USE	USE	NONE	NONE	NONE	NONE
R260, R262	USE	USE	USE	USE	NONE	NONE	NONE	NONE
C736, C737	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE
C740, C741	NONE	NONE	NONE	NONE	NONE	USE	NONE	NONE
C618	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE
Q201	KTA1273	KTA1273	KTA1273	KTA1273	2SB1274	2SB1274	2SB1274	2SB1274

■CD control circuit


VMW1378B
FMN-014
VMW1378A
L MOTOR DRIVER
R MOTOR DRIVER
UNIT MICON
DIGITAL SERVO & PROCESSOR
PICKUP A'SSY KSM-213CCM
OPTICAL PICK-UP
TRACKING COIL
FOCUSING COIL
DRIVE UNIT
MOTOR P.W.B.
TO DOOR PHOTO SENSOR PWB
TO CN661 OF FMC-029-1
NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
CONDITION: MODE : DISC1 STOP
2. UNLESS OTHERWISE SPECIFIED.
ALL RESISTOR ARE 1/10W ± 5% METAL GLAZE RESISTOR.
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITANCE VALUES ARE IN ± F(P=pF).
ALL INDUCTANCE VALUES ARE IN HENRY(H).
ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(± F)/RATED VOLTAGE (v).
3. NI INDICATES COMPONENT NOT INSERTED
CD SIGNAL

■Cassette amplifier circuit



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION : MECHA STOP MODE

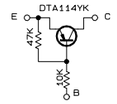
2. UNLESS OTHERWISE SPECIFIED ・RESISTORS ARE 1/10W ±5% METAL GLAZE RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN #F(P=pF).
   ALL INDUCTANCE VALUES ARE IN #H(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
   ‖ POLYPROPYLENE CAPACITOR

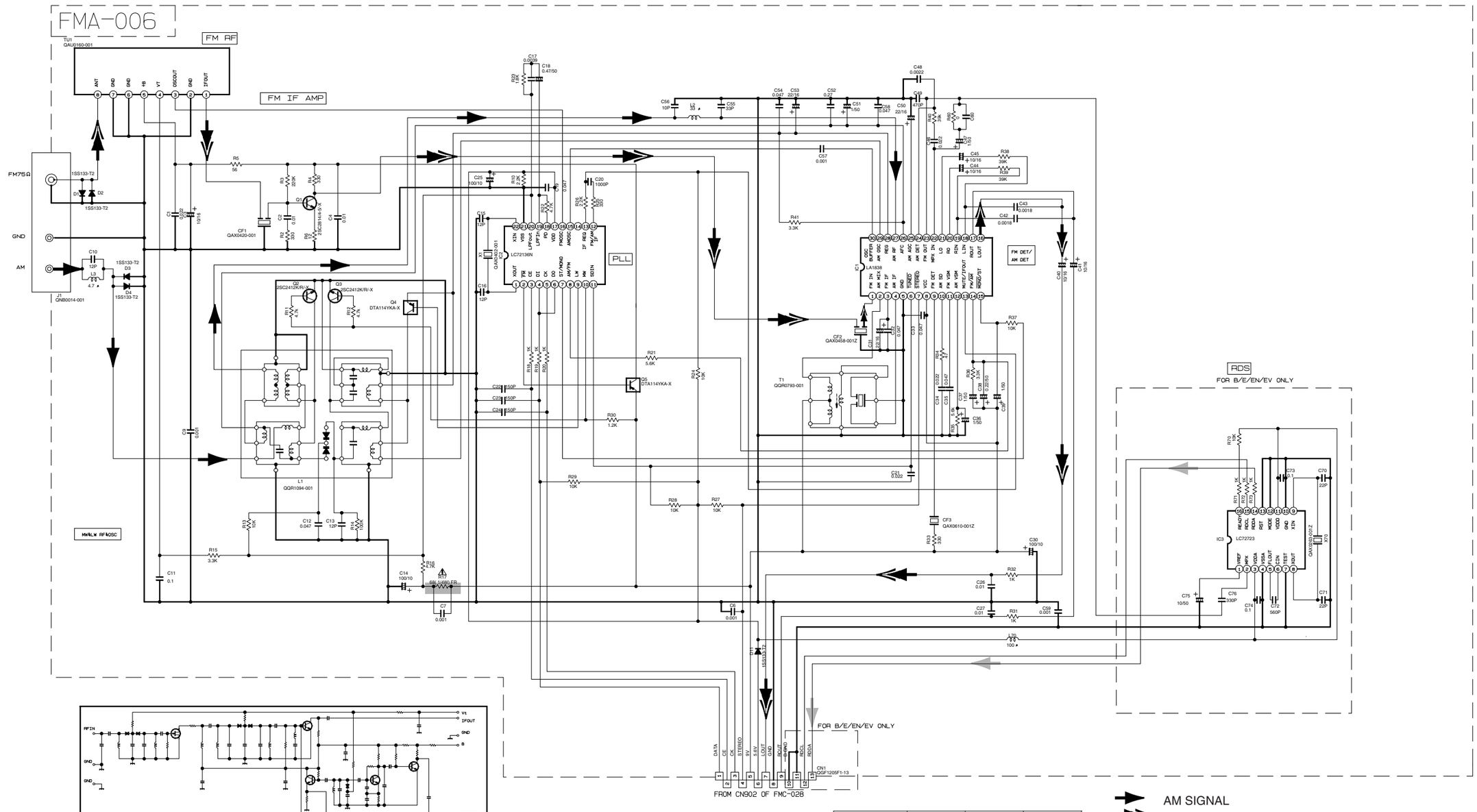
PARTS	NAME	REF.NO
1/8W	FA1A4Z 0* DTC114TKA	Q101・Q201 Q103・Q203 Q331
1/8W	FA1L4M 0* DTC144EKA	Q321
1/8W	FA1F4M 0* DTC124EKA	Q372

■ Tuner circuit

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
2. ALL RESISTORS ARE 1/8W ±5% METAL GLAZE RESISTOR.
3. ALL RESISTANCE VALUES ARE IN OHM(Ω).
4. ALL CAPASITANCE VALUES ARE IN ㎌(P=pF).
5. ALL E.CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (㎌)/RATED VOLTAGE (V).
6. SI DIODES (▶|) ARE ALL 1SS133-T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR HSS104J.
7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.
   Q1 2SC2814/4-5/-X Q2.Q3 2SC2412K/R/-X
   Q4.Q5 DTA114YKA-X
8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.



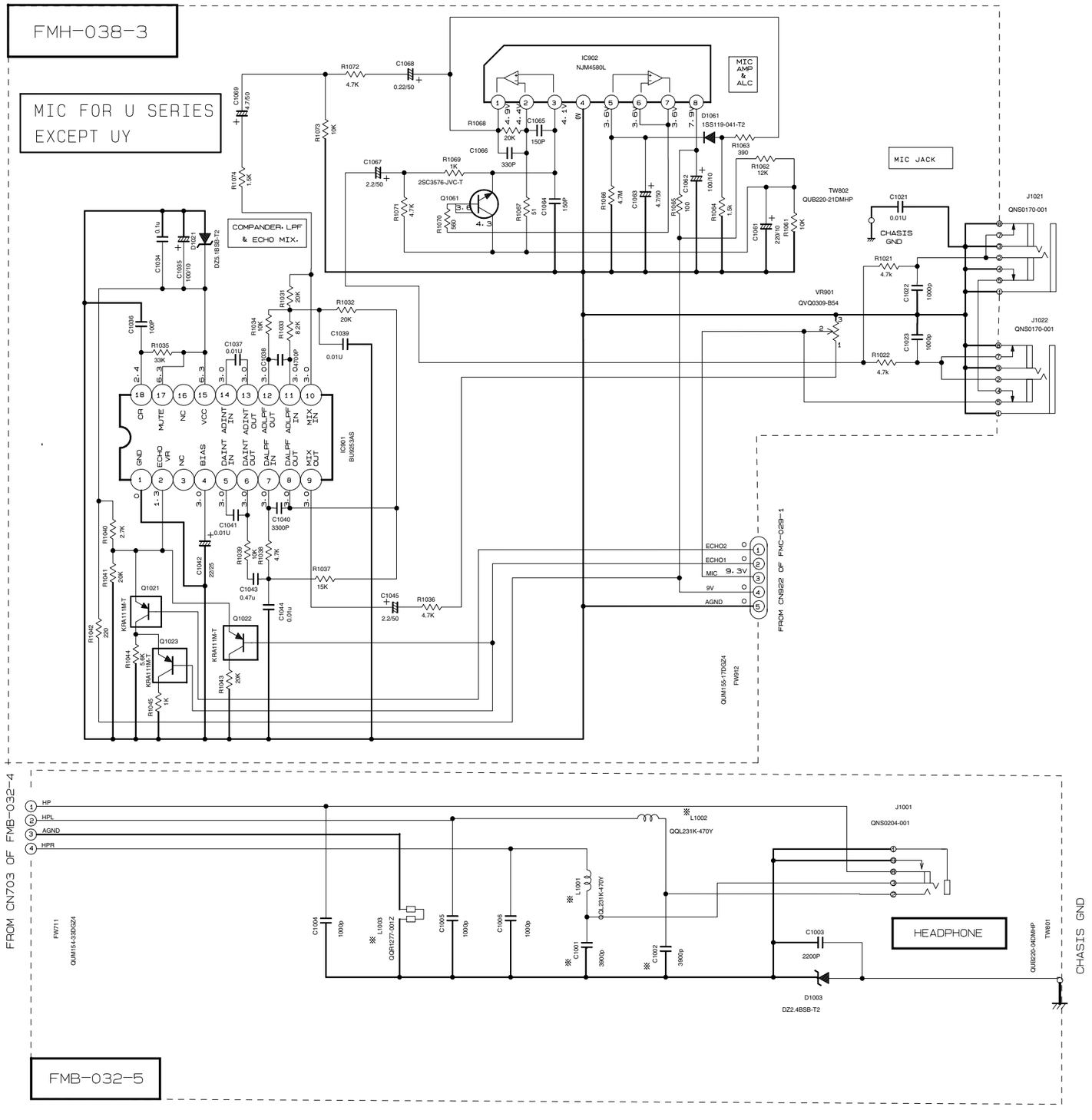


	CONDITION PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
IC1	FM NO SIGNAL	3.6	8.9	3.6	3.6	0	5.0	5.0	8.9	8.9	1.3	0.1	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.5	3.5	3.6	3.6	2.7
	FM 60dB STEREO	3.6	8.9	3.6	3.6	0	0	5.0	8.9	8.9	1.3	4.3	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.6	3.6	3.6	3.6	2.7
	AM NO SIGNAL	3.5	9.0	3.5	3.5	0	5.0	5.1	9.0	2.6	1.3	0	0	0.9	4.7	5.5	4.3	4.3	4.3	4.3	3.3	3.2	2.8	ust	0.7	0.7	3.6	3.6	3.6	3.6	2.1
IC2	FM NO SIGNAL	2.5	0	0	5.0	4.9	5.0	7.9	7.8	3.6	6.1	5.1	0	0	0	0	2.5	5.1	0.9	0.9	3.8	0	2.3								

Tr NO.	Q1			Q5					
PIN NO.	E	C	B	E	C	B			
FM 87.5MHz NO SIGNAL	0	7.1	0.85	8.9	8.8	0			
AM 522KHz NO SIGNAL	0	0	0	9.0	0	8.9			
Tr NO.	Q2			Q3			Q4		
PIN NO.	E	C	B	E	C	B	E	C	B
AM 522KHz NO SIGNAL	0	0	0.7	0	0	0.7	0	3.6	0.7
AM 144KHz NO SIGNAL	0	0	0.3	0	0.3	0.3	3.6	3.6	3.6

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

■Mic & Head phone circuit



※ MARK	L1001. L1002	C1001. C1002	L1003
B. E. EN. EV	QQL231K-470Y	3900P	QQR1277-001Z
A	QQL231K-470Y	3900P	QQR1277-001Z
J. C	SHORT	NONE	QQL231K-2R2Y
U. UJ. UT. UW	SHORT	NONE	QQL231K-2R2Y
UY	SHORT	NONE	QQL231K-2R2Y

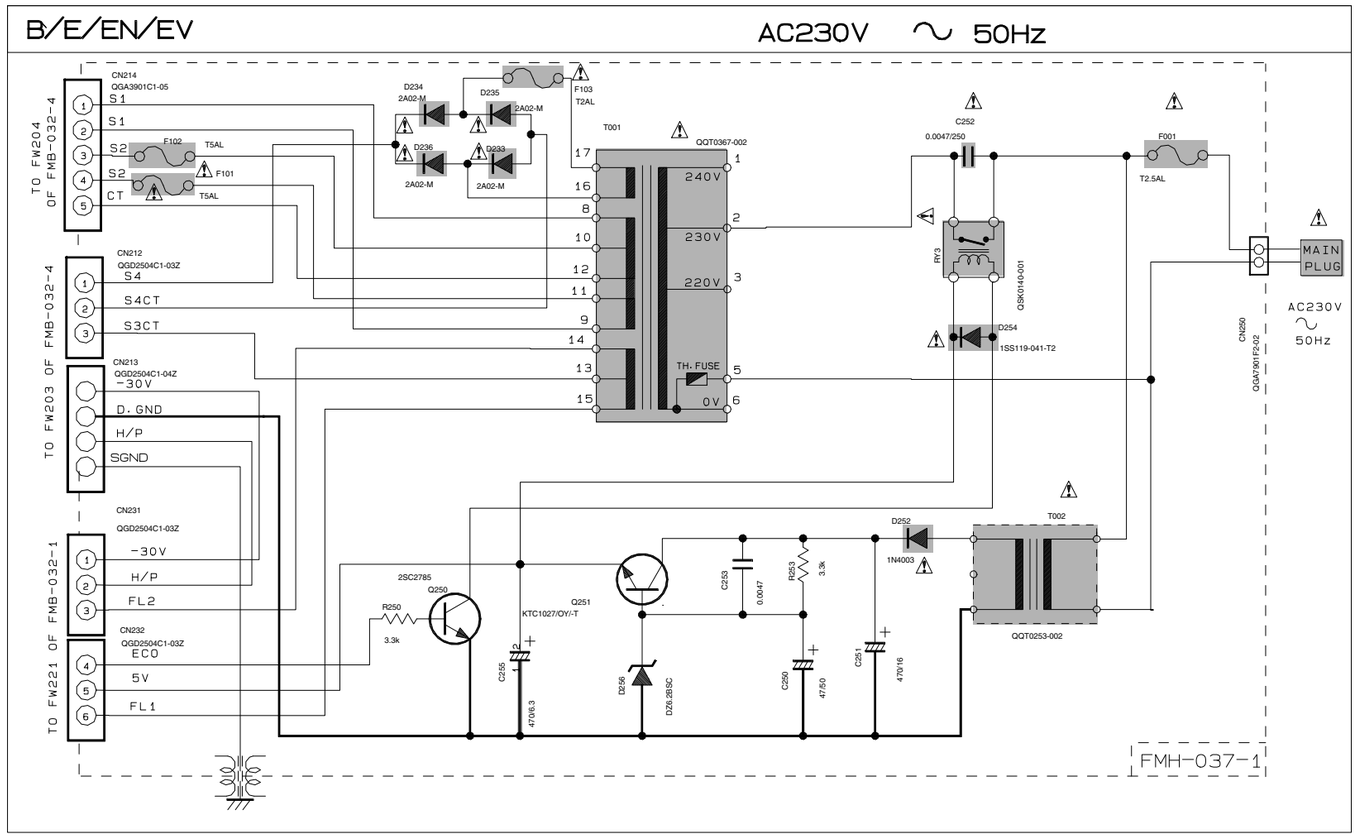
※ MARK	L1001. L1002	C1001. C1002	L1003
B. E. EN. EV	QQL231K-470Y	3900P	QQR1277-001Z
A	QQL231K-470Y	3900P	QQL231K-2R2Y
J. C	SHORT	NONE	QQL231K-2R2Y
U. UJ. UT. UW	SHORT	NONE	QQL231K-2R2Y
UY	SHORT	3900P	QQL231K-2R2Y

NOTES

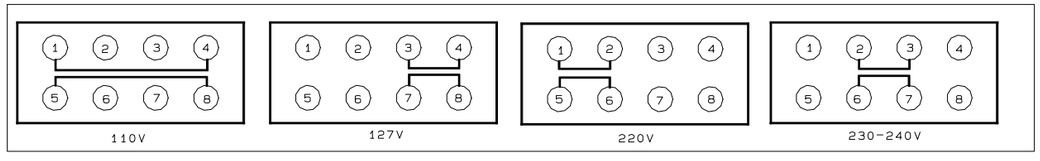
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
   OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION --- AUX MODE. ECHO OFF
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL INDUCTANCE VALUES ARE IN μH(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM
   OF CAPACITANCE / RATED VOLTAGE (V).

■ Power supply circuit

POWER SUPPLY BLOCK



VOLTAGE SELECTOR LOCATION



⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

EXPLANATION OF OVERALL OF SCHEMA.

MODEL CA-HXZ1/CA-HXZ1R/HX-Z1/HX-Z1R

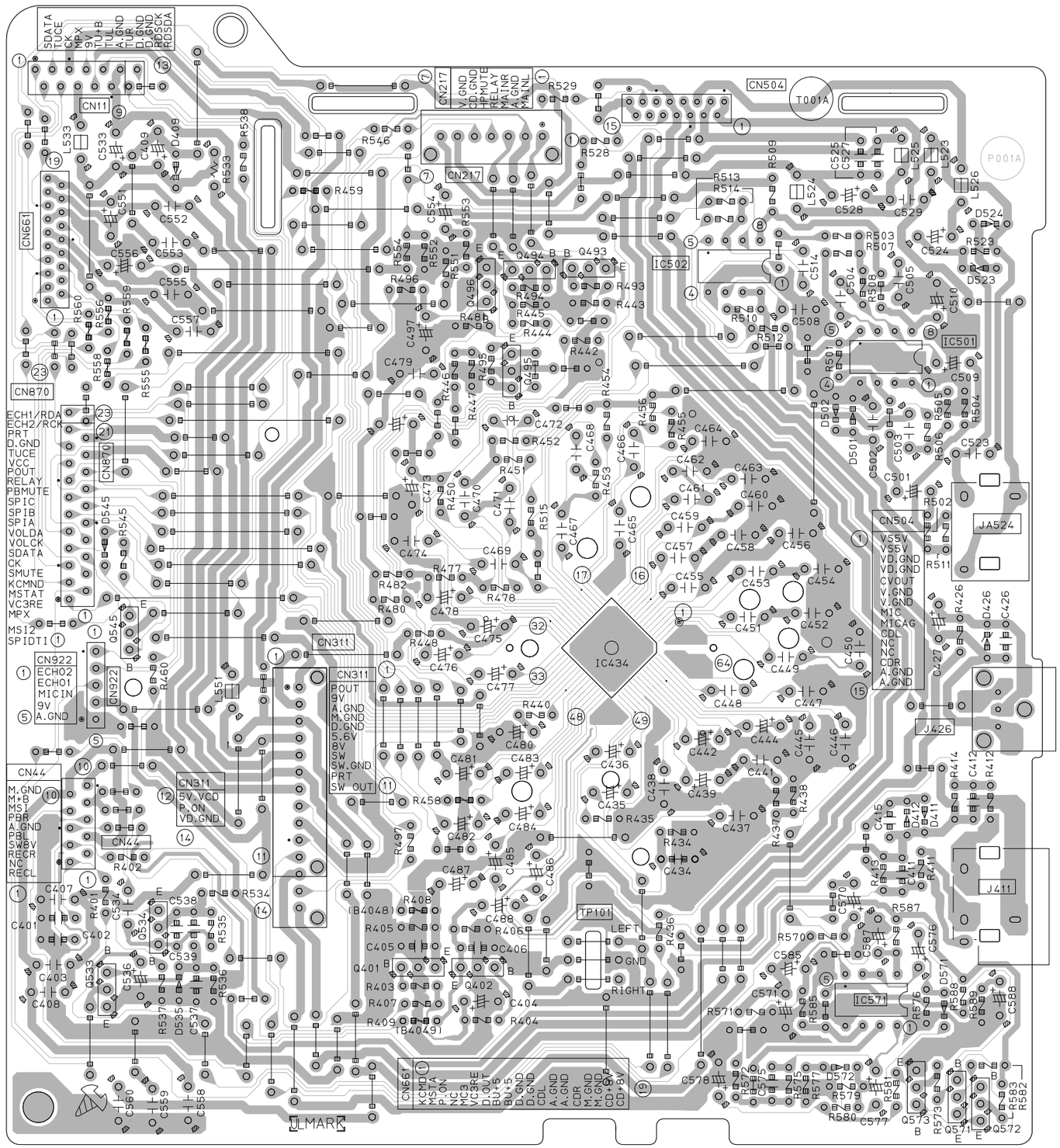
SHEET NUMBER	CIRCUITS DESCRIPTION
1/9	. PRIMARY WITH MAINS TRANSFORMER
2/9	. DC REGULATORS/AUDIO OUTPUT
3/9	. EXTERNAL INPUT, SOURCE SELECTOR SWITCH
4/9	. FL DISPLAY, SYSTEM CONTROL LSI, USER CONTROL KEYS
5/9	. MIC AMP, ECHO CIRCUIT (ONLY FOR U, UJ, UT, UW) .
6/9	. CD SERVO AND CD SYSTEM CONTROL . CD CHANGER MECHANISM CONTROL
7/9	. TAPE DECK MECHANISM CONTROL . TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
8/9	. TUNER RF/IF/FM MULTIPLEX (ONLY FOR A, B, E, EN, EV)
9/9	. TUNER RF/IF/FM MULTIPLEX (ONLY FOR C, J, U, UP, US, UT, UX, UY)

VERSION CODES

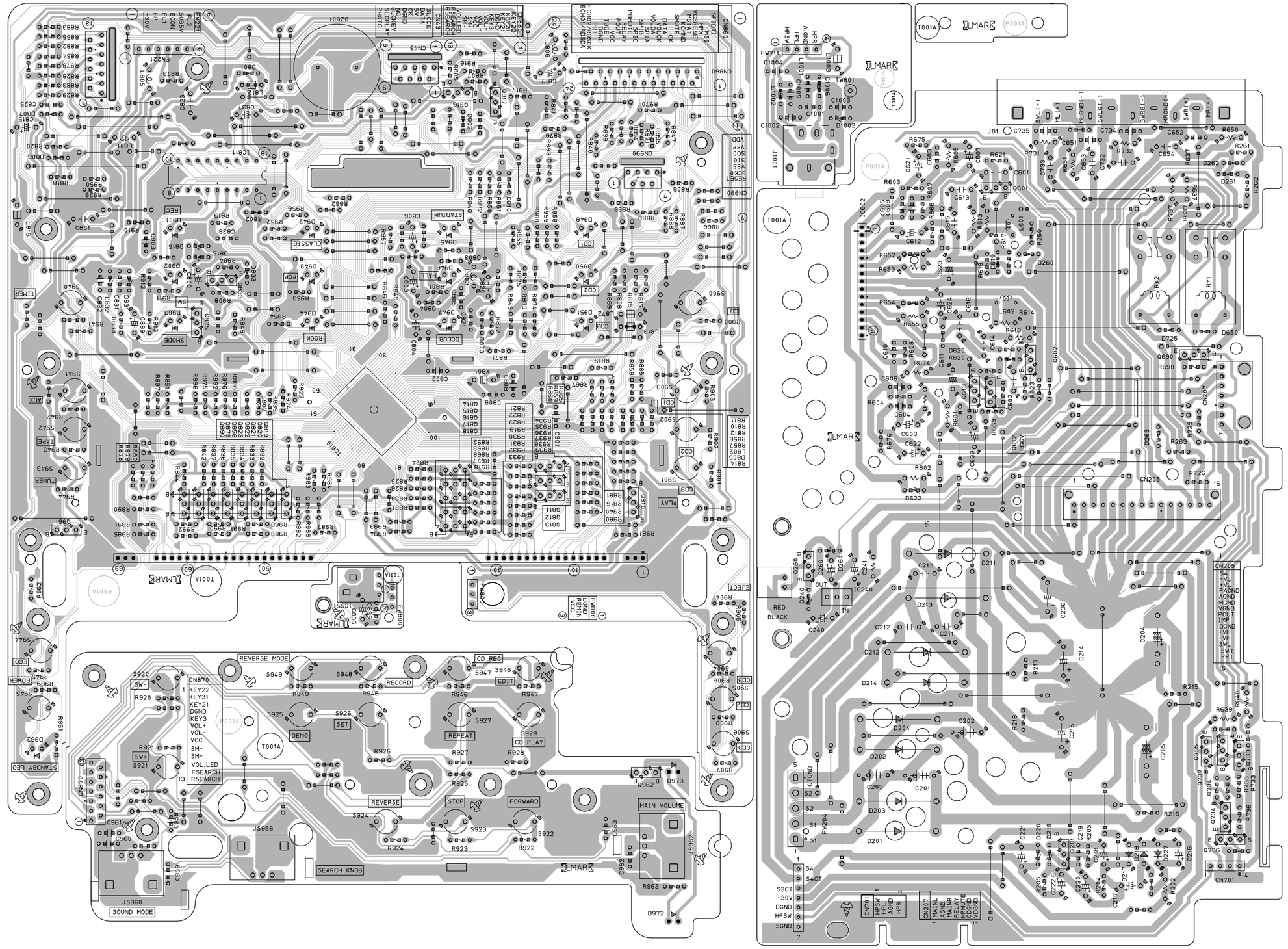
J : U.S.A.
C : CANADA
B : U.K.
E : CONTINENTAL EUROPE
EN : NORDIC COUNTRIES
EV : EASTERN EUROPE & RUSSIA
A : AUSTRALIA
UJ : MILITARY
UT : TAIWAN
UY : ARGENTINA
UW : SOUTH AMERICA EXCEPT ARGENTINA
U : UNIVERSAL EXCEPT ALL OF ABOVE

Printed circuit boards

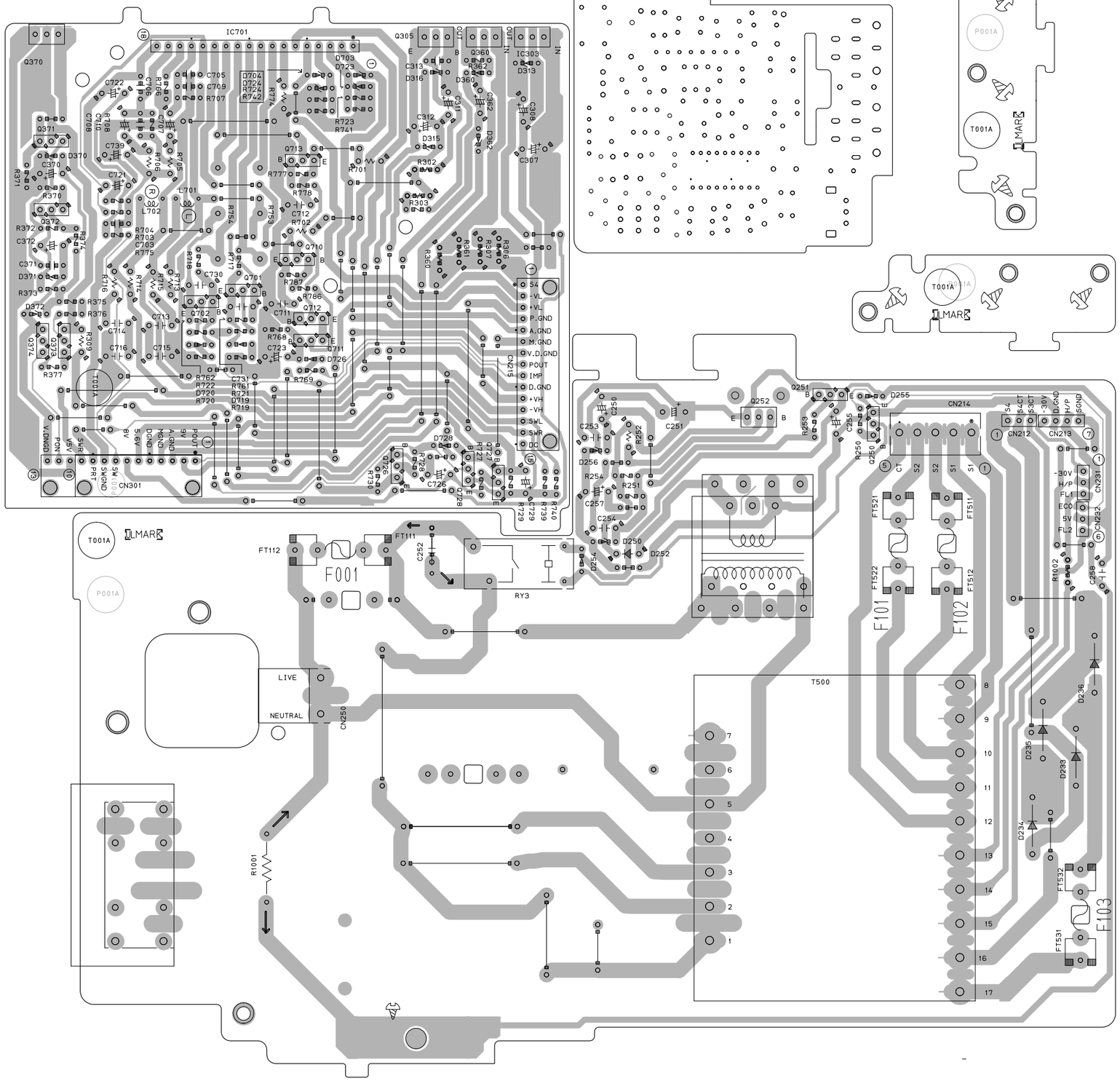
■Main board



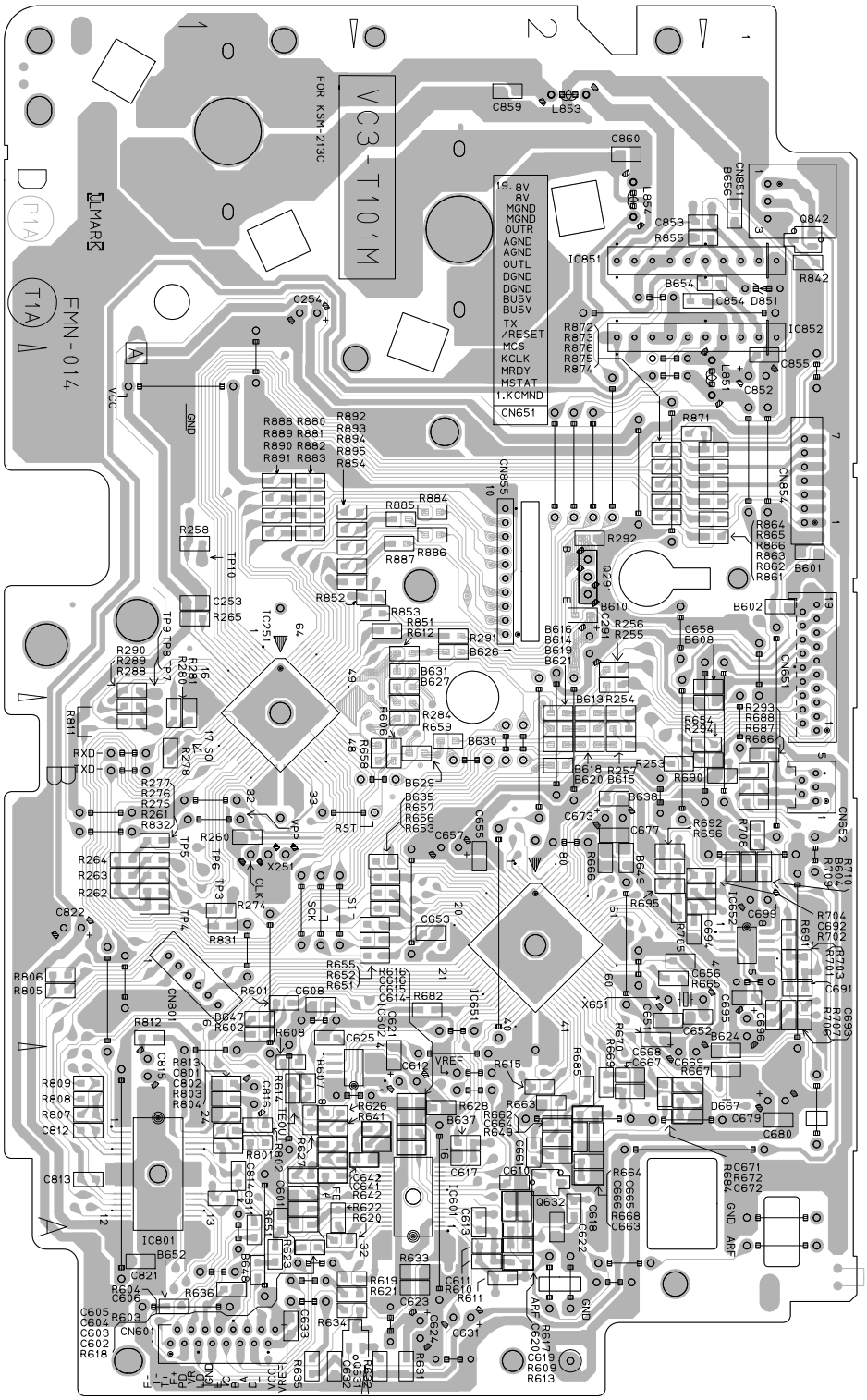
■Front board


REVERSE MODE
CD REC
RECORD
EDIT
DEMO
SET
REPEAT
CD PLAY
REVERSE
STOP
FORWARD
MAIN VOLUME
SEARCH KNOB
SOUND MODE
CN870
KEY22
KEY31
KEY21
DGND
KEY3
VOL+
VOL-
VCC
SM+
SM-
VOL.LED
FSEARCH
RSEARCH
CN701
HP5W
HPL
AGND
HPR
SGND
S3CT
-30V
DGND
HP5W
SGND
S4
S4CT
CN205
CN207
MAINL
AGND
MAINR
RELAY
HPMUTE
DGND
VDGND
RED
BLACK
OUT
IN

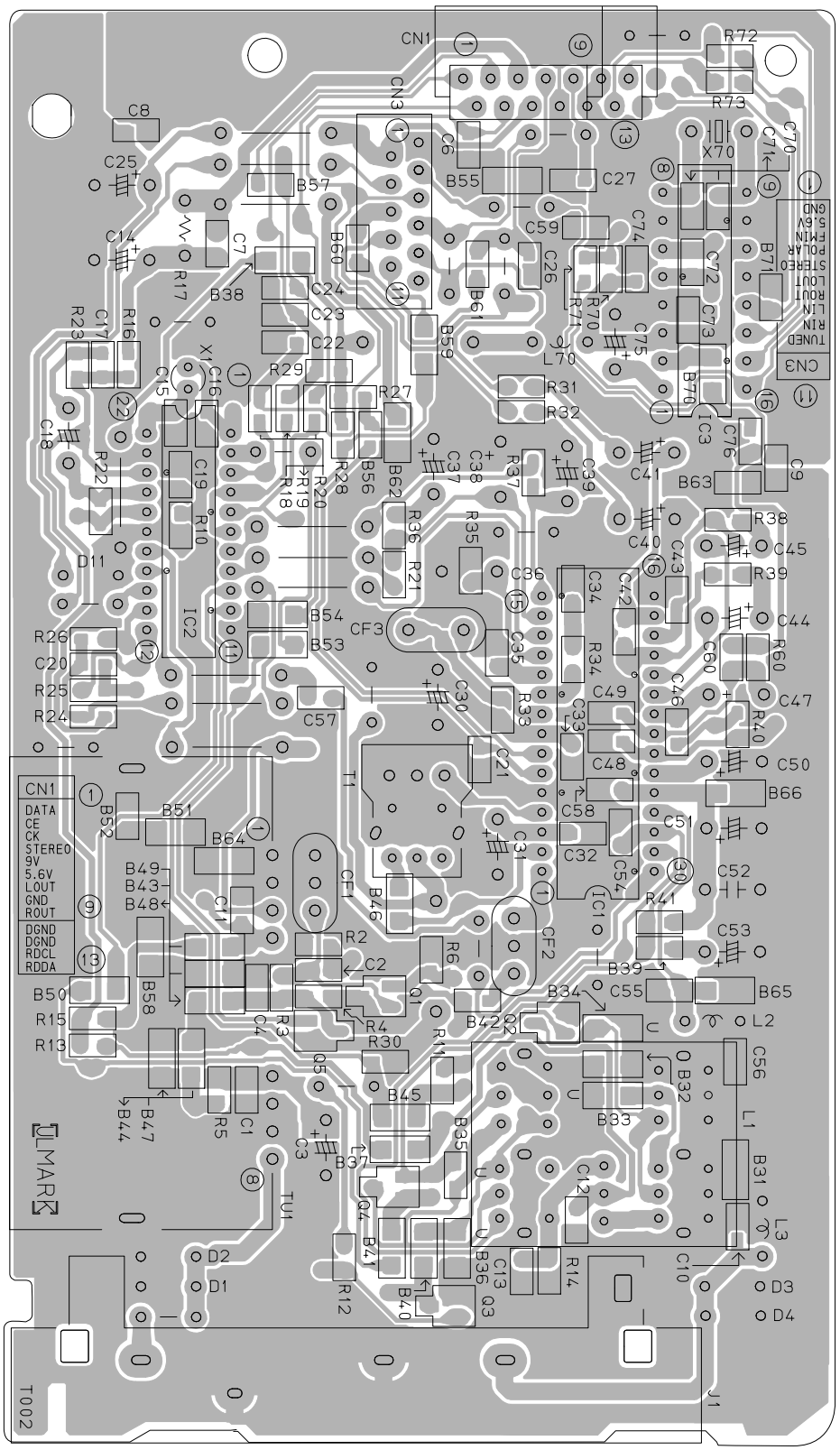
■ Power amplifier board



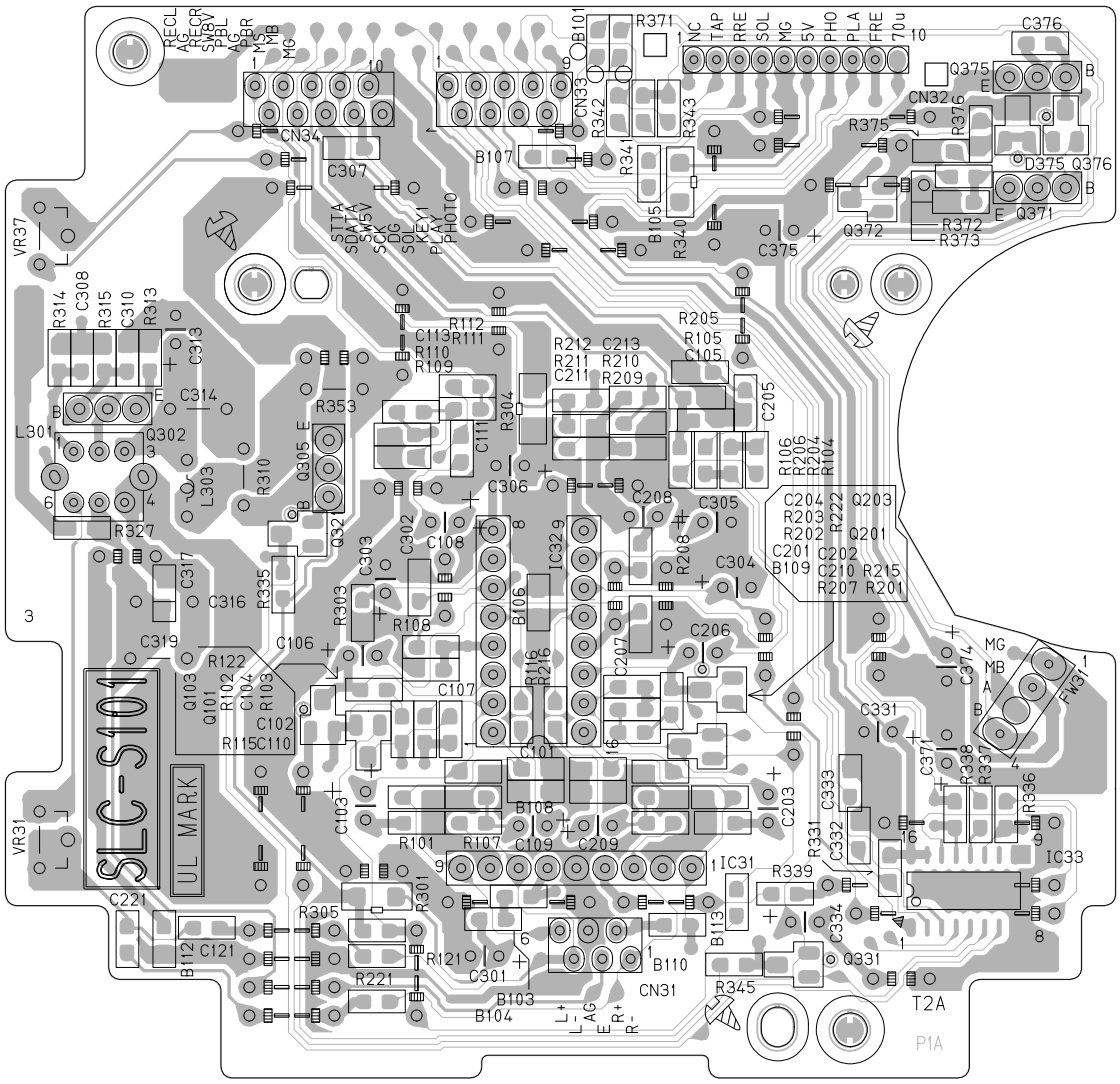
■CD servo control board



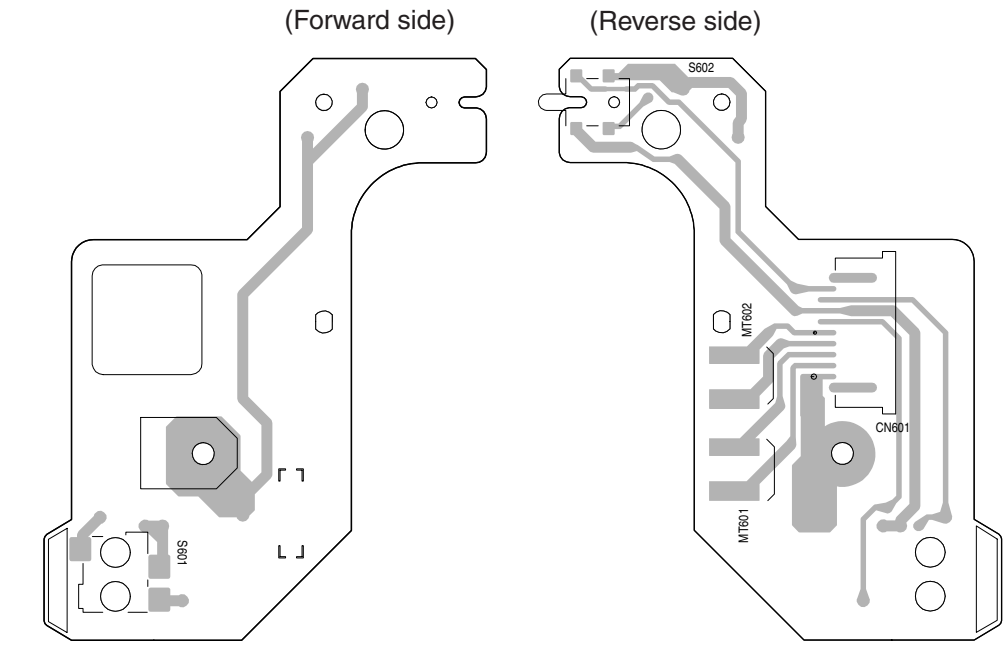
■ Tuner board


CN1
CN3
CN2
CN1
DATA
CE
CK
STEREO
9V
5.6V
LOUT
GND
ROUT
DGND
DGND
RDCL
RDDA
TUNED
RIN
LIN
LOUT
STEREO
SOLAR
SELECT
GND
TU1
T1
T002
J1
IC1
IC2
IC3
X1
X70
CF1
CF2
CF3
Q1
Q2
Q3
Q4
Q5
D1
D2
D3
D4
D11
L1
L2
L3
L70
LMAR

■ Head amplifier board

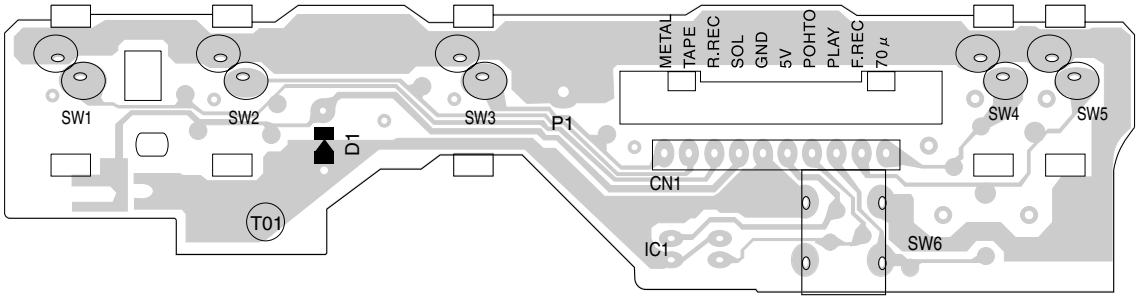


■ Traverse mechanism board



(Traverse mechanism board)

■ Cassette switch board



PARTS LIST

[HX-Z1R]

* All printed circuit boards and its assemblies are not available as service parts.

HX-Z1R

Area suffix

B ---------- U.K.
E ---------- Continental Europe
EN ---------- Northern Europe
EV ---------- Eastern Europe

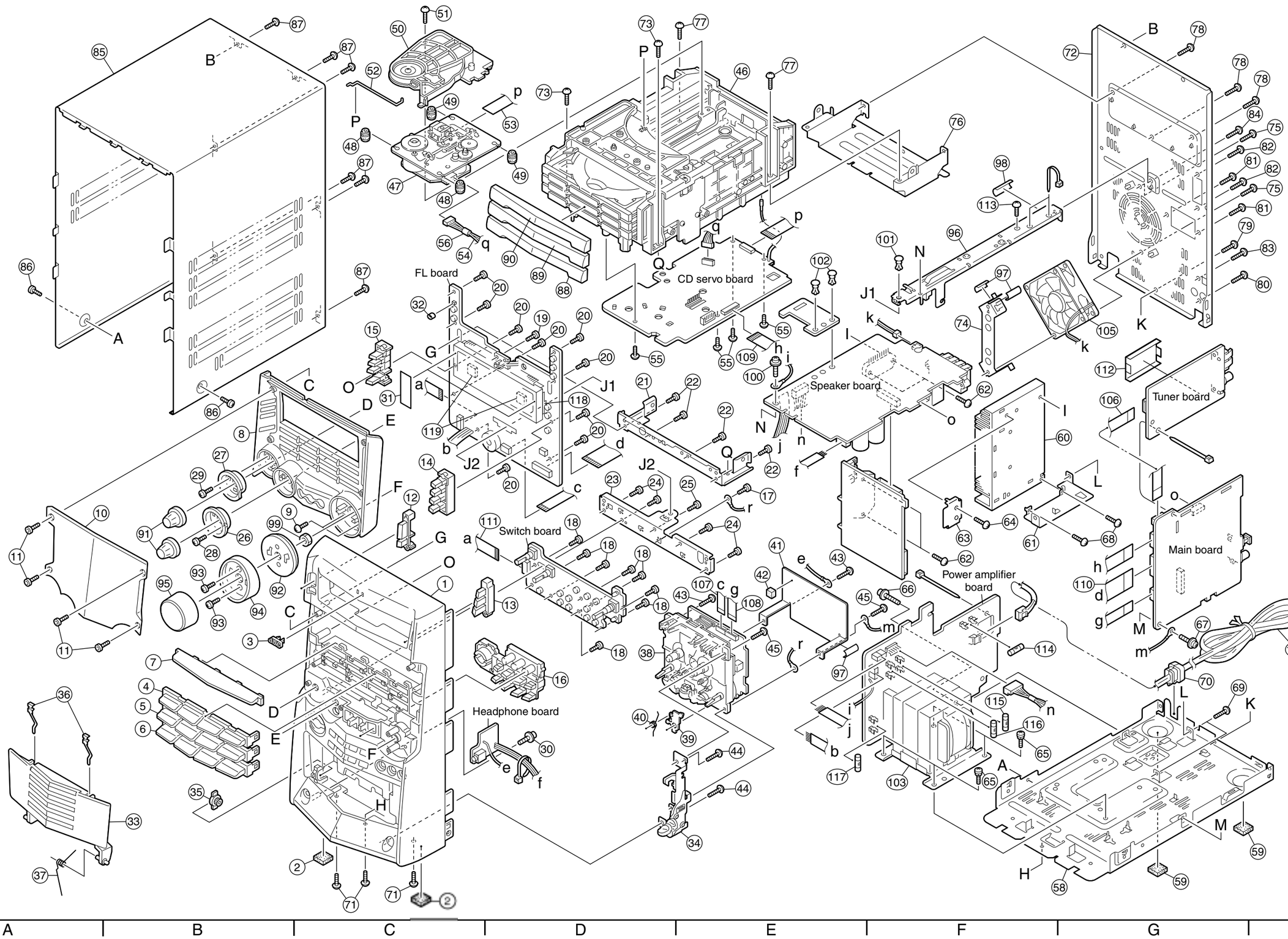
- Contents -

Exploded view of general assembly and parts list (Block No.M1) ---------- 3- 3
Speaker assembly and parts list (Block No.M2) ---------- 3- 6
CD changer mechanism assembly and parts list (Block No.MA) ---------- 3- 8
Cassette mechanism assembly and parts list (Block No.MP) ---------- 3-10
Electrical parts list (Block No.01~08) ---------- 3-12
Packing materials and accessories parts list (Block No.M3~M6) ---------- 3-24

< MEMO >

Exploded view of general assembly and parts list

Block No. M 1 M M



■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	GV10115-003A	FRONT PANEL	1		
	2	GV40313-001A	FELT SPACER	2		
	3	GV40077-002A	JVC BADGE	1		
	4	GV30293-002A	FUNCTION LENS A	1		
	5	GV30294-002A	FUNCTION LENS B	1		
	6	GV30295-002A	FUNCTION LENS C	1		
	7	GV30296-001A	FL LENS	1		
	8	GV10114-003A	WINDOW FRAME	1		
	9	QYSDSF2608Z	SCREW	2	W.FRAME/F.PNL	
	10	GV20171-003A	WINDOW SCREEN	1		
	11	LV40744-001A	SOCKET BOLT	4	W.SCREEN/F.PNL	
	12	GV30309-003A	POWER BUTTON ASSY	1		
	13	GV30288-001A	CD EJECT BUTTON	1		
	14	GV30290-002A	CD BUTTON	1		
	15	GV30289-002A	FUNCTION BUTTON	1		
	16	GV20169-001A	CONTROL BUTTON	1		
	17	QYSDSF2608Z	SCREW	1	W.FRAME GROUND	
	18	QYSDSF2608Z	SCREW	8	PWB BRD./F.PANE	
	19	QYSDSF2608Z	SCREW	1	REMOTE BRD./F.P	
	20	QYSDSF2608Z	SCREW	9	MICOM PWB/F.PNL	
	21	GV30082-002A	STAY BRACKET	1		
	22	QYSDSF2608Z	SCREW	4	STY.BRKT.+F.PNL	
	23	GV30301-001A	SUPPORT BRACKET	1		
	24	QYSDSF2608Z	SCREW	4	SPT.BRKT.+F.PNL	
	25	QYSDSF2608Z	SCREW	1	SPT.BRKT + WIN.	
	26	GV30303-001A	PRESET RING	1		
	27	GV30302-001A	SOUND MODE RING	1		
	28	QYSDSF2608Z	SCREW	1	PRE.RING/F.PANE	
	29	QYSDSF2608Z	SCREW	1	S.M.RING/F.PANE	
	30	E65923-003	TAPPING SCREW	1	PHONE BRD./F.PN	
	31	GV40342-001A	FL SHEET	2		
	32	GV40343-001A	VINYL TUBE	1		
	33	GV30315-001A	CASS.HOLD.ASSY	1		
	34	GV30311-001A	EJECT SYS.ASSY	1		
	35	GV40034-001A	DAMPER ASSY	1		
	36	VKY4180-401	CASSETTE SPRING	2		
	37	GV40317-001A	HOLDER SPRING	1		
	38	----------	CASSETTE MECHA	1		
	39	VKL7850-002	EJECT SAFTY(A)	1		
	40	VKW5258-003	TORSION SPRING	1	EJECT SAFETY(A)	
	41	GV30124-001A	TRANS SHIELD	1		
	42	GV40170-003A	SPACER	1	STICK AT SLC(M)	
	43	QYSBSF3012Z	SCREW	2	MECHA/F.PANEL	
	44	QYSBSF3010Z	SCREW	2	E.ARM BKT./F.PL	
	45	QYSBSG3010Z	T.SCREW	2	MECHA/E.ARM BKT	
	46	----------	CD CHANGER MECHA	1		
	47	KSM-213CCMJ	CD MECHA ASSY	1		
	48	LV42763-001A	INSULATOR	2		

■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	49	LV42763-002A	INSULATOR	2		
	50	VKS3703-00R	CLAMPER ASSY	1		
	51	QYSPST2606Z	SCREW	1		
	52	VKW5187-001	ROD	1		
	53	QUQ610-1609AJ	FLAT WIRE	1		
	54	VDM1001-M002AV	WIRE & TUBE	1		
	55	QYSBSF2608Z	T.SCREW	4		
	56	VYSA1R2-033	SPACER	1	FOR VDM1001-M00	
	58	GV10111-001A	CHASSIS BASE	1		
	59	GV40313-002A	FELT SPACCER	2	CHASS BASE FOOT	
	60	GV30279-002A	HEAT SINK	1		
	61	GV30281-001A	BASE BRACKET	1		
	62	QYSBSG3014E	T.SCREW	4	FOR POWER IC	
	63	GV40297-001A	LEAF SPRING	1		
	64	QYSBSG3014E	T.SCREW	1	FOR LEAF SPRING	
	65	QYSDSTL4008Z	SPECIAL SCREW	4	FOR TRANS/CH.BS	
	66	QYSBSFG3016Z	SCREW	1	PRI.BRD/CH.BASE	
	67	QYSBSGG3008E	T.SCREW	1	FMC BRD./CH.BS	
	68	QYSBSG3014E	T.SCREW	2	BASE BRKT/H.SIN	
	69	QYSBSG3008E	T.SCREW	2	CH.BS./BS.BRKT.	
	70	QZW0033-001	STRAIN RELIEF	1		
	71	QYSBSGY3008E	SPECIAL SCREW	3	F.PANEL/CH. BAS	
	72	GV10112-005A	REAR PANEL	1		B,E,EN
		GV10112-006A	REAR PANEL	1		EV
	73	QYSBSG3010Z	T.SCREW	2	C3 MECHA/S.BRKT	
	74	GV30278-001A	FAN BARCKET	1		
	75	QYSBSGY3008E	SPECIAL SCREW	2	R.PANEL/FAN.BRK	
	76	GV30277-001A	REAR BRACKET	1		
	77	QYSBSG3010Z	T.SCREW	2	R.BRKT./CD MECH	
	78	QYSBSGY3008E	SPECIAL SCREW	3	R.BRKT./R.PANEL	
	79	QYSBSGY3008E	SPECIAL SCREW	1	REAR PNL/CHAS.B	
	80	QYSBSGY3008E	SPECIAL SCREW	1	REAR PNL/ AUX	
	81	QYSBSGY3008E	SPECIAL SCREW	2	SPK/ REAR PANEL	
	82	QYSBSGY3008E	SPECIAL SCREW	2	TUNER/REAR PANE	
	83	QYSBSGY3008E	SPECIAL SCREW	1	OPTICAL/R.PANEL	
	84	QYSBSGY3008E	SPECIAL SCREW	1	INNER BAR/R.PNL	
	85	GV10110-001A/S/	METAL COVER	1		
	86	QYSDSG3006M	T.SCREW	2	M.COVER/C.BASE	
	87	QYSBSGY3008E	SPECIAL SCREW	6	M.COVER/R.PANEL	
	88	GV20166-001A	CD FITTING 1	1	DISC 1	
	89	GV20167-001A	CD FITTING 2	1	DISC 2	
	90	GV20168-001A	CD FITTING 3	1	DISC 3	
	91	GV30299-001A	SD. MODE KNOB	2		
	92	GV30297-002A	VOLUME LENS	1		
	93	QYSDSF2608Z	SCREW	2	VOL.LEN/F.PANEL	
	94	GV30262-002A	VOLUME ORNAMENT	1		
	95	GV30298-001A	VOLUME KNOB	1		
	96	GV30286-001A	INNER BAR	1		

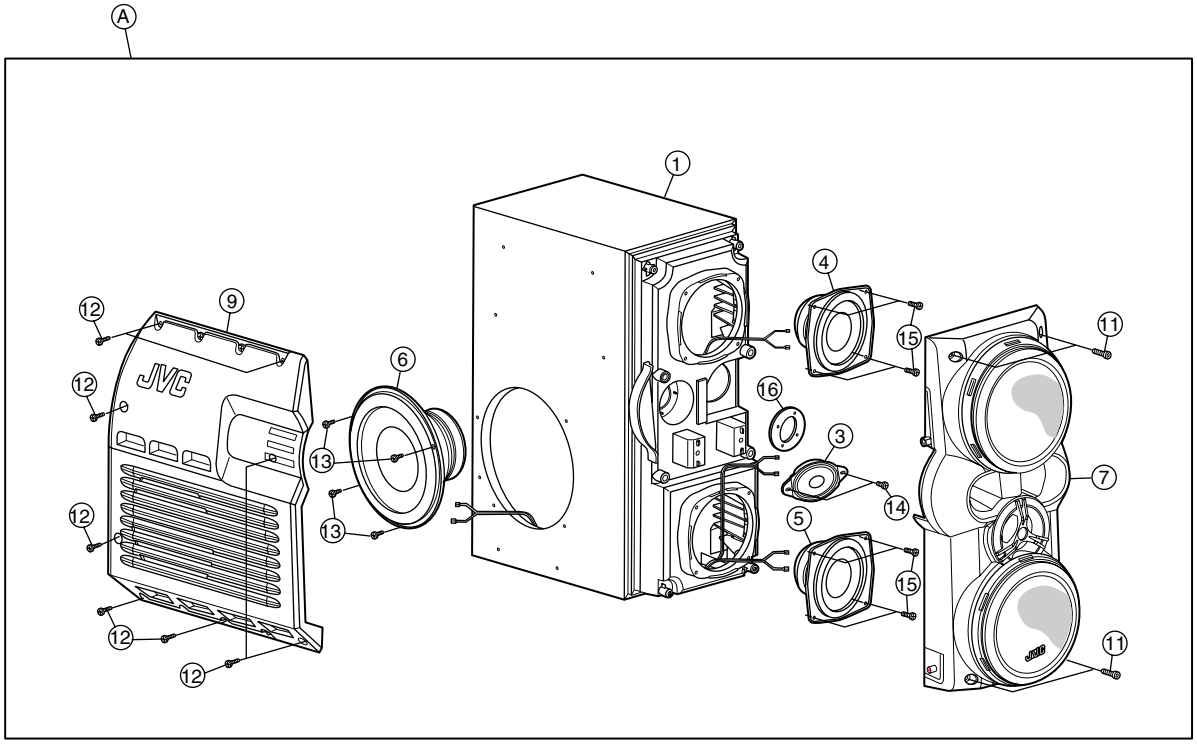
■ Parts list (General assembly)

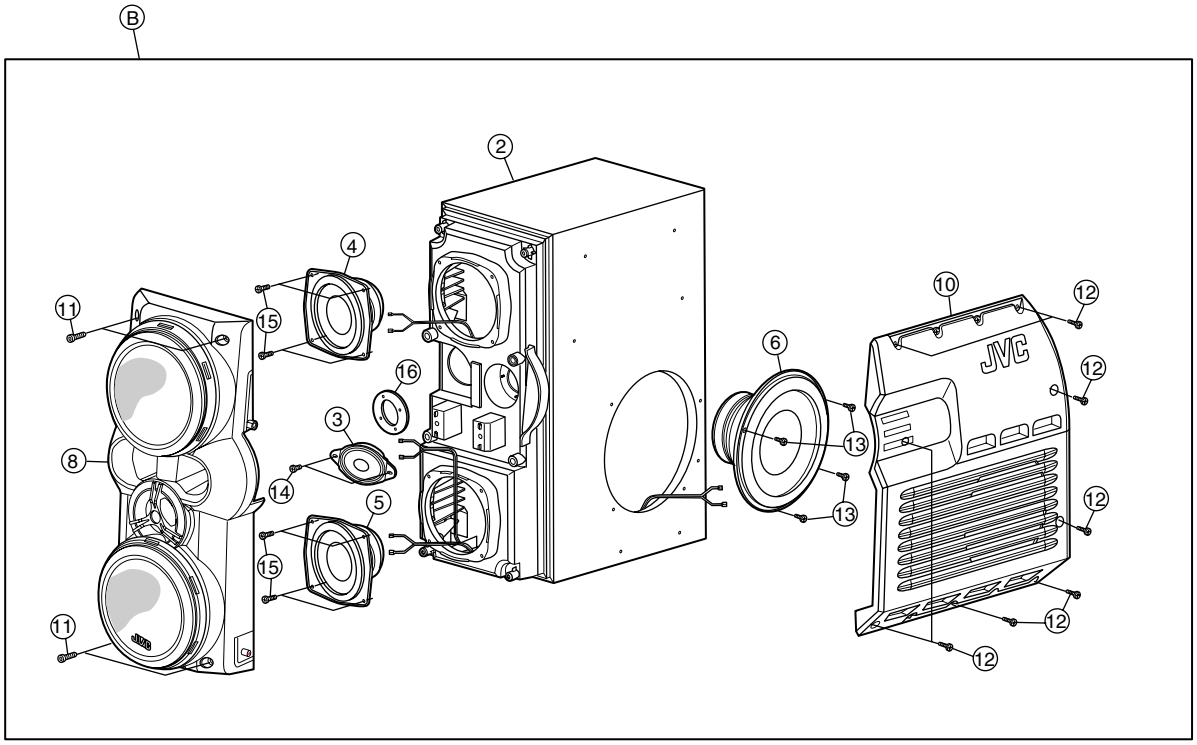
Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	97	GV40121-004A	SPACER	3	STICK AT I.BAR	
	98	LV30225-079A	SPACER	1	STICK AT I.BAR	
	99	GV40186-001A	NUT	1	AT VOL.KNOB	
	100	QYSBSGG3008E	T.SCREW	1	INNER BAR/FMH B	
	101	E310243-002	PLASTIC RIVET	1	SUPP.BRKT./INNE	
	102	E310243-002	PLASTIC RIVET	2	HOLD.BRD./FMH B	
⚠	103	QQT0367-002	POWER TRANSF	1	T001	
⚠	104	QMPN150-200-JC	POWER CORD	1		B
⚠		QMPK200-200-JD	POWER CORD	1		E,EN,EV
	105	QAR0228-001	FAN MOTOR	1		
	106	QUQH12-1307BJ	FLAT WIRE	1	FC1	
	107	QUQH12-0908BJ	FLAT WIRE	1	FC33	
	108	QUQH12-1023BJ	FLAT WIRE	1	FC34	
	109	QUQH10-1918AJ	FLAT WIRE	1	FC651	
	110	QUQH12-2320BJ	FLAT WIRE	1	FC860	
	111	QUQH12-1309BJ	FLAT WIRE	1	FC880	
	112	GV40361-001A	TUNER COVER	1		
	113	QYSBSG3008E	T.SCREW	1	WIRE / I.BAR	
⚠	114	QMF51W2-2R5-J8	FUSE	1	F001	
⚠	115	QMF51W2-5R0-J8	FUSE	1	F101	
⚠	116	QMF51W2-5R0-J8	FUSE	1	F102	
⚠	117	QMF51W2-2R0-J8	FUSE	1	F103	
	118	GV30280-001A	FL HOLDER	1		
	119	E3400-439	FELT SPACER	2	AT FL HOLDER	

Speaker assembly and parts list

Block No. M 2 M M





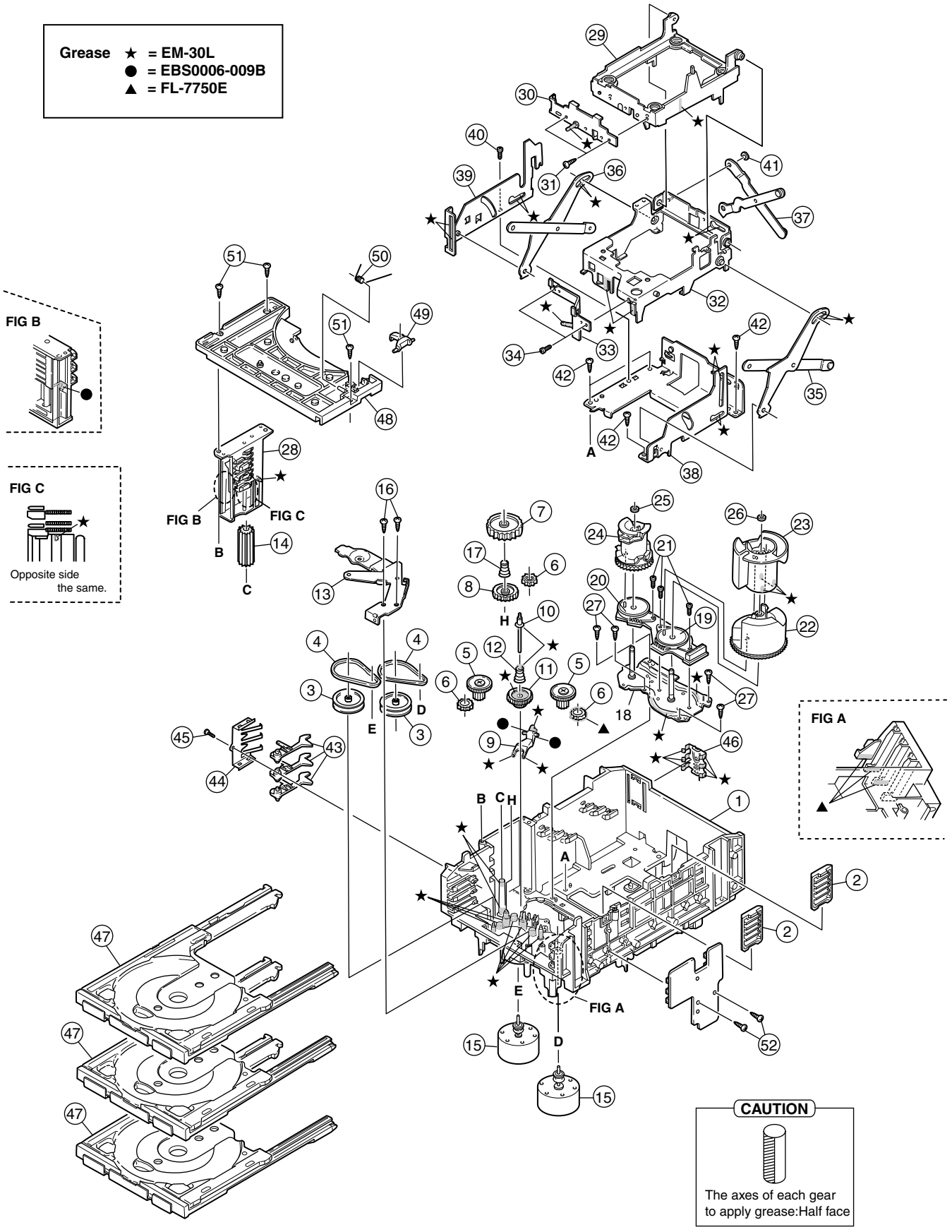
■ Parts list (Speaker assembly)

Block No. M2MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A	HXZ1R-SPBOX-L	SP BOX ASSY(L)	1		
	B	HXZ1R-SPBOX-R	SP BOX ASSY(R)	1		
	1	----------	CABINET ASSY(L)	1		
	2	----------	CABINET ASSY(R)	1		
	3	993060500030	5CM TWEETER	2		
	4	991091000047	10CM WOOFER	2	FOR TOP SIDE	
	5	991081000048	10CM WOOFER	2	FOR BOTTOM SIDE	
	6	991061650046	16CM SUBWOOFER	2		
	7	199734300149	FRONT PANEL(L)	1		
	8	199734300150	FRONT PANEL(R)	1		
	9	151733601104	SIDE PANEL(L)	1		
	10	151733601105	SIDE PANEL(R)	1		
	11	135604161053	SCREW(M4X16)	8	FOR FRONT PANEL	
	12	135604201054	SCREW(M4X20)	16	FOR SIDE PANEL	
	13	135604201046	SCREW(M4X20)	8	FOR SUBWOOFER	
	14	135604121055	SCREW(M4X12)	4	FOR TWEETER	
	15	135604161047	SCREW(M4X16)	16	FOR WOOFER	
	16	109760511072	FOAM GASKET	2		

CD changer mechanism assembly and parts list

Block No. M A M M



■ Parts list (CD changer mechanism)

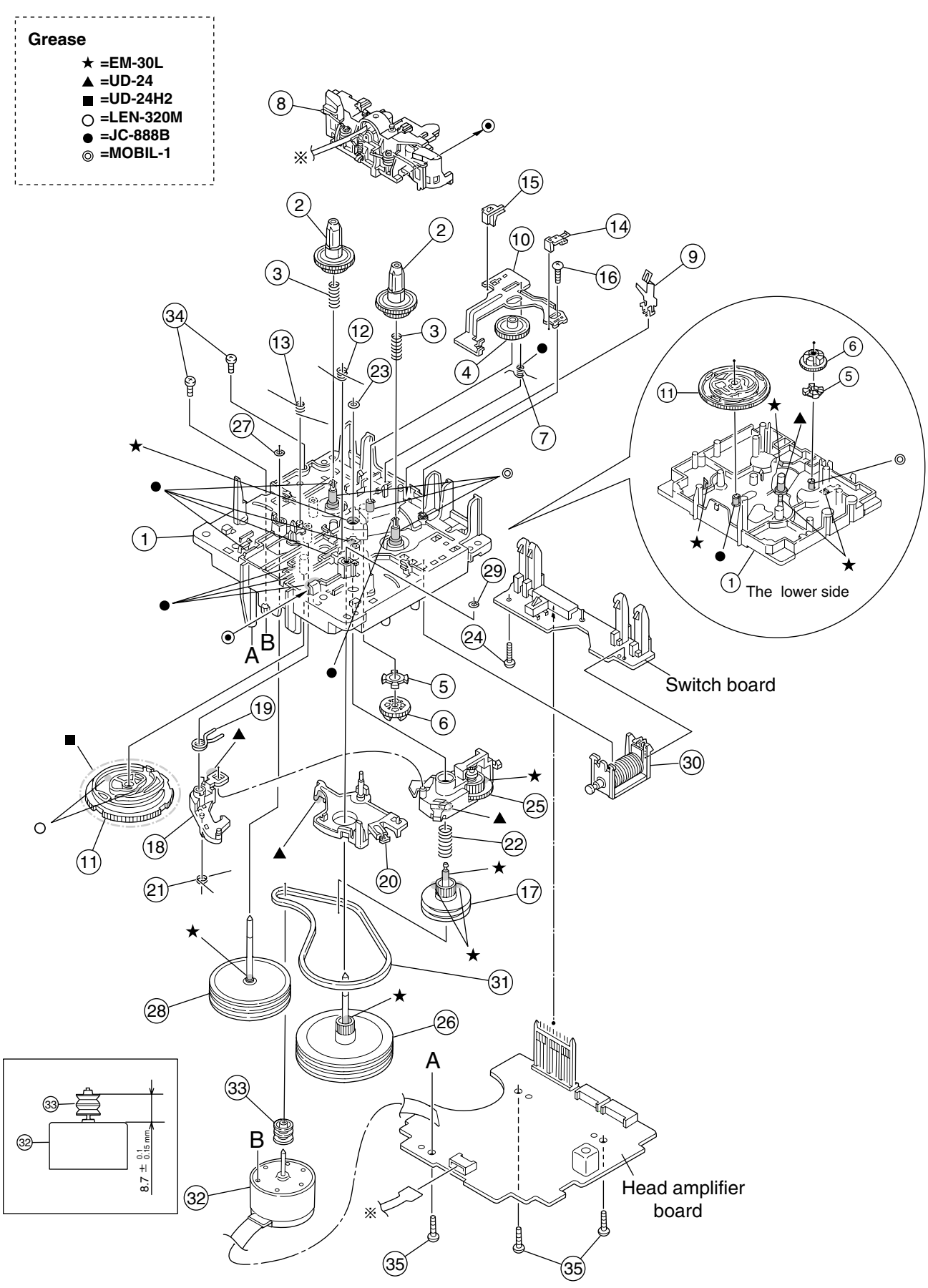
Block No. MAMM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	VKS1144-004	CHASSIS	1		
	2	VKS3698-003	TRAY GUIDE	2		
	3	VKS5532-003	PULLEY GEAR	2		
	4	VKB3000-164	BELT	2		
	5	VKS5505-003	GEAR B	2		
	6	VKS5506-002	GEAR C	3		
	7	VKS5507-002	CROSS GEAR U	1		
	8	VKS5508-002	CROSS GEAR L	1		
	9	VKS5510-003	SELECT LEVER	1		
	10	VKH5769-001	S.G.SHAFT	1		
	11	VKS5511-002	SELECT GEAR	1		
	12	VKW5155-003	COMP.SPRING	1	FOR SELECT GEAR	
	13	VKM3846-003	GEAR BRACKET	1		
	14	VKS5509-002MM	CYLINDER GEAR	1		
	15	MSN5D257A-SA2	DC MOTOR ASSY	2		
	16	QYSPSPD2616Z	SCREW	2	FOR MOTOR	
	17	LV40612-001A	COMP.SPRING	1		
	18	VKM3825-00B	C.G.BASE ASS'Y	1		
	19	VKZ3172-00ASS	CAM SW. R ASS'Y	1		
	20	VKZ3173-00ASS	CAM SW. L ASS'Y	1		
	21	QYSPST2606Z	SCREW	3	FOR CAM SW.	
	22	VKS2263-002MM	CAM R1	1		
	23	VKS2264-002MM	CAM R2	1		
	24	VKS2265-002MM	CAM GEAR L	1		
	25	WDL316050MM	SLIT WASHER	1	FOR CAM GEAR L	
	26	WDL316050MM	SLIT WASHER	1		
	27	QYSBSF2608Z	T.SCREW	4	FOR C.GEAR BASE	
	28	VKS3702-00FMM	DRIVE UNIT	1		
	29	VKS2247-005	MECHA HOLDER A	1		
	30	VKL7767-00F	BRACKET ASS'Y	1		
	31	QYSBSF2606Z	SCREW	2	FOR BRACKET	
	32	VKM3860-00E	M.HOLDER B AS'Y	1		
	33	VKL7802-00D	M.HOLDER C AS'Y	1		
	34	QYSDST2604Z	SCREW	2	FOR M.HOLDER C	
	35	VKL7810-00B	LIFTER ASS'Y R	1		
	36	VKL7811-00B	LIFTER ASS'Y L	1		
	37	VKL7812-00B	LIFTER ASS'Y H	1		
	38	VKL2745-003	LIFTER BASE	1		
	39	VKM3857-002	LIFTER BRACKET	1		
	40	QYSDST2604Z	SCREW	1		
	41	WDL266035-2	SLIT WASHER	1		
	42	QYSBSF2608Z	T.SCREW	4		
	43	VKS5514-002MM	LOCK LEVER	3		
	44	VKY3133-002MM	RETURN SPRING	1		
	45	QYSBSF2608Z	T.SCREW	1	FOR RETURN SP.	
	46	VKY3134-003MM	CLICK SPRING	1		
	47	VKS2252-00N	TRAY ASS'Y	3		
	48	VKS2250-004	TOP BRACKET	1		
	49	VKS5515-002	S.TRAY STOPPER	1		
	50	VKW5156-004	TORSION SPRING	1		
	51	QYSBSF2608Z	T.SCREW	3		
	52	QYSBSF2608Z	T.SCREW	2		

Cassette mechanism assembly and parts list

Block No. M P M M

SLC-S101M



■ Parts list (Cassette mechanism)

Block No. MPMM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	VKS1165-00J	CHASSIS B.ASS'Y	1		
	2	VKS2274-002	REEL GEAR	2		
	3	VKW5286-002	B.T. SPRING	2		
	4	VKS5559-001	PLAY IDLE GEAR	1		
	5	VKS5595-002	BLIND	1		
	6	VKS5560-003	FR IDLE GEAR	1		
	7	LV42013-001A	EARTH SPRING	1		
	8	SLC-RP3SVM	HEAD MOUNT	1		
	9	VKY3149-002	CASSETTE SP.	1		
	10	LV31786-001A	PLAY SW LEVER	1		
	11	VKS1166-004	CONTROL CAM	1		
	12	VKW5279-002	HEAD BASE SP(R)	1		
	13	VKW5280-001	HEAD BASE SP(L)	1		
	14	LV41584-001A	BRAKE(R)	1		
	15	LV41585-002A	BRAKE(L)	1		
	16	QYSBSF2005Z	T.SCREW	1		
	17	VKS5603-00G	MAIN PULLEY ASY	1		
	18	VKS3785-001MM	FR ARM	1		
	19	VKW5284-002	SWING SPRING	1		
	20	VKS2278-003	TRIGGER ARM	1		
	21	VKW5301-001	FR SPRING	1		
	22	VKW5266-001	ELEVATOR SPRING	1		
	23	WDL214025	WASHER	1		
	24	QYSBSF2005Z	T.SCREW	1		
	25	VKS3786-00G	CLUTCH ASS'Y	1		
	26	VKF3205-00B	F.WHEEL ASSY(R)	1		
	27	WDL183425	SLIT WASHER	1		
	28	VKF3207-00B	F.WHEEL ASSY(L)	1		
	29	WDL173525-6	SLIT WASHER	1		
	30	VKZ3174-00A	DC SOLENOID	1		
	31	LV42836-001A	CAPSTAN BELT	1		
	32	MSI-5U2LWA	D.C.MOTOR ASS'Y	1		
	33	VKR4761-001	MOTOR PULLEY	1		
	34	QYSPSP2604Z	SCREW	2		
	35	QYSBSF2608Z	T.SCREW	3	FOR P.W.B.	

■ **Electrical parts list (Power amplifier board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 250	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 251	QETN1CM-477Z	E CAPACITOR	470MF 20% 16V	
⚠	C 252	QCZ9105-472	C CAPACITOR	4700PF	
	C 253	QFLM1HJ-472Z	M CAPACITOR	4700PF 5% 50V	
	C 255	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 308	QEKC1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 311	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 312	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 362	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 703	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 705	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 706	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 707	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C 708	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C 709	QCSB1HK-4R7Y	C CAPACITOR	4.7PF 10% 50V	
	C 710	QCSB1HK-4R7Y	C CAPACITOR	4.7PF 10% 50V	
	C 711	QFZ0212-104Z	MM CAPACITOR	.10MF	
	C 712	QFZ0212-104Z	MM CAPACITOR	.10MF	
	C 713	QFLM1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 714	QFLM1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 715	QFLM1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 716	QFLM1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 721	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 722	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 723	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 726	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 729	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 730	FQCF31HZ-223Z	D CAPACITOR		
	C 731	FQCF31HZ-223Z	D CAPACITOR		
	C 739	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	CN212	QGD2504C1-03Z	SOCKET		
	CN213	QGD2504C1-04Z	SOCKET		
	CN214	QGA3901C1-05	CONNECTOR		
	CN215	QGB2510K2-15	CONNECTOR		
	CN231	QGD2504C1-03Z	SOCKET		
	CN232	QGD2504C1-03Z	SOCKET		
	CN250	QGA7901F2-02	CONNECTOR		
	CN301	QGB2510K2-11	CONNECTOR		
⚠	D 233	2A02-M	DIODE		
⚠	D 234	2A02-M	DIODE		
⚠	D 235	2A02-M	DIODE		
⚠	D 236	2A02-M	DIODE		
⚠	D 252	1N4003S-T5	SI DIODE		
⚠	D 254	1SS119-041-T2	SI DIODE		
	D 256	DZ6.2BSC-T2	ZENER DIODE		
	D 313	DZ10BSC-T2	ZENER DIODE		
	D 315	DZ11BSC-T2	ZENER DIODE		
	D 360	1SS119-041-T2	SI DIODE		
	D 362	DZ8.2BSC-T2	ZENER DIODE		
	D 703	DZ15BSC-T2	ZENER DIODE		
	D 704	DZ15BSC-T2	ZENER DIODE		
	D 719	1SS119-041-T2	SI DIODE		
	D 720	1SS119-041-T2	SI DIODE		
	D 723	DZ36BSA-T2	ZENER DIODE		
	D 724	DZ36BSA-T2	ZENER DIODE		
	D 726	1SS119-041-T2	SI DIODE		
	D 728	1SS119-041-T2	SI DIODE		
⚠	FT111	QNG0003-001Z	FUSE CLIP		
⚠	FT112	QNG0003-001Z	FUSE CLIP		
⚠	FT511	QNG0003-001Z	FUSE CLIP		
⚠	FT512	QNG0003-001Z	FUSE CLIP		
⚠	FT521	QNG0003-001Z	FUSE CLIP		
⚠	FT522	QNG0003-001Z	FUSE CLIP		
⚠	FT531	QNG0003-001Z	FUSE CLIP		

⚠	Item	Parts number	Parts name	Remarks	Area
⚠	FT532	QNG0003-001Z	FUSE CLIP		
⚠	IC303	KIA7808API	IC		
⚠	IC305	KIA7809API	IC		
⚠	IC360	KIA7805API	IC		
⚠	IC701	STK412-010	IC(HYBRID)		
	L 701	QQLZ035-R39	INDUCTOR		
	L 702	QQLZ035-R39	INDUCTOR		
	Q 250	2SC2785/FE/-T	TRANSISTOR		
	Q 251	KTC1027/OY/-T	TRANSISTOR		
	Q 701	KTA1268/GL/-T	TRANSISTOR		
	Q 702	KTA1268/GL/-T	TRANSISTOR		
	Q 710	KTA1023/OY/-T	TRANSISTOR		
	Q 711	KTC3200/GL/-T	TRANSISTOR		
	Q 712	KTA1268/GL/-T	TRANSISTOR		
	Q 713	KTC1027/OY/-T	TRANSISTOR		
	Q 726	KTC3200/GL/-T	TRANSISTOR		
	Q 727	KTA1268/GL/-T	TRANSISTOR		
	Q 728	2SC2785/FE/-T	TRANSISTOR		
	R 250	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 253	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 362	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
⚠	R 701	QRJ146J-470X	UNF C RESISTOR	47 5% 1/4W	
⚠	R 702	QRJ146J-470X	UNF C RESISTOR	47 5% 1/4W	
	R 703	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 704	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
⚠	R 705	FQRJ143J-821X	UNF C RESISTOR		
⚠	R 706	FQRJ143J-821X	UNF C RESISTOR		
	R 707	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 708	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
⚠	R 713	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 714	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 715	FQRJ143J-100X	UNF C RESISTOR		
⚠	R 716	FQRJ143J-100X	UNF C RESISTOR		
	R 717	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 718	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 719	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 720	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 721	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 722	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 723	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R 724	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R 727	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 728	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 729	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 730	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 739	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R 740	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 741	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R 742	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
⚠	R 753	QRZ0197-R22	C RESISTOR	1W	
⚠	R 754	QRZ0197-R22	C RESISTOR	1W	
	R 761	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 762	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 766	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R 768	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 769	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
⚠	R 774	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 775	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 777	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 778	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 786	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 787	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
⚠	RY 3	QSK0140-001	RELAY		
⚠	T 002	QQT0253-002	POWER TRANS		

■ **Electrical parts list (Main board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 401	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 402	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 403	FQCF31HP-103Z	C CAPACITOR		
	C 404	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 407	QFLM1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 408	FQCF31HP-103Z	C CAPACITOR		
	C 409	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 411	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 412	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 415	QDXB1CM-222Y	C CAPACITOR		
	C 426	QDVB1EZ-223Y	C CAPACITOR		
	C 427	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 435	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 436	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 437	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 438	QFLM1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 442	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 444	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 445	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 446	QFLM1HJ-472Z	M CAPACITOR	4700PF 5% 50V	
	C 447	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C 448	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C 449	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C 450	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C 451	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 452	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 453	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 454	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 455	QFLM1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 456	QFLM1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 457	QFLM1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 458	QFLM1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 459	QFLM1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 460	QFLM1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 461	QFLM1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 462	QFLM1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 463	QFG32AJ-222Z	PP CAPACITOR	2200PF 5% 100V	
	C 464	QFG32AJ-222Z	PP CAPACITOR	2200PF 5% 100V	
	C 465	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C 466	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C 467	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C 468	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C 469	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 470	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 471	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 472	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 473	QETN1EM-227Z	E CAPACITOR	220MF 20% 25V	
	C 474	QFVJ1HJ-394Z	MF CAPACITOR	.39MF 5% 50V	
	C 475	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C 476	QTE1V06-106Z	E CAPACITOR		
	C 477	QTE1V06-106Z	E CAPACITOR		
	C 478	QTE1C06-476Z	E CAPACITOR		
	C 479	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C 480	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 481	QTE1V06-106Z	E CAPACITOR		
	C 482	QTE1V06-106Z	E CAPACITOR		
	C 483	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 484	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 485	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 486	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 487	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 488	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 497	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C 501	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 502	QFLM1HJ-153Z	M CAPACITOR	.015MF 5% 50V	
	C 503	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C 504	QFLM1HJ-822Z	M CAPACITOR	8200PF 5% 50V	
	C 505	QFVJ1HJ-274Z	MF CAPACITOR	.27MF 5% 50V	
	C 508	QFLM1HJ-273Z	M CAPACITOR	.027MF 5% 50V	
	C 509	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 510	QEKC1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 514	QFLC1HJ-471Z	M CAPACITOR	470PF 5% 50V	
	C 533	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 534	QFLM1HJ-153Z	M CAPACITOR	.015MF 5% 50V	
	C 536	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 537	QDGB1HK-681Y	C CAPACITOR		
	C 538	QDXB1CM-182Y	C CAPACITOR		
	C 539	QCSB1HJ-330Y	C CAPACITOR	33PF 5% 50V	
	C 551	QETN1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 552	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 553	QFLM1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 554	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 555	QFLM1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 556	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 557	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 558	FQCF31HP-103Z	C CAPACITOR		
	C 559	FQCF31HP-103Z	C CAPACITOR		
	C 560	QFLM1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 563	QDYB1CM-103Y	C CAPACITOR		
	C 564	QDYB1CM-103Y	C CAPACITOR		
	C 570	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C 571	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 575	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 576	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 577	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 578	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 585	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 587	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 588	QETN1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 590	QDGB1HK-102Y	C CAPACITOR		
	C 591	QDGB1HK-102Y	C CAPACITOR		
	C 595	QDYB1CM-103Y	C CAPACITOR		
	CN 11	QGF1205F1-13	CONNECTOR		
	CN 44	QGF1201F3-10	CONNECTOR		
	CN217	QGB2510J1-07	CONNECTOR		
	CN311	QGB2510J1-11	CONNECTOR		
	CN661	QGF1036F1-19	FFC/FPC CONNE		
	CN870	QGF1205F1-23	CONNECTOR		
	D 409	DZ5.1BSB-T2	ZENER DIODE		
	D 411	1SS119-041-T2	SI DIODE		
	D 412	1SS119-041-T2	SI DIODE		
	D 426	DZ5.1BSB-T2	ZENER DIODE		
	D 448	1SS119-041-T2	SI DIODE		
	D 501	1SS119-041-T2	SI DIODE		
	D 502	1SS119-041-T2	SI DIODE		
	D 535	1SS119-041-T2	SI DIODE		
	D 545	1SS119-041-T2	SI DIODE		
	D 571	1SS119-041-T2	SI DIODE		
	D 572	1SS119-041-T2	SI DIODE		
	IC434	BH3874AKS2	IC		
	IC501	NJM4580D	IC		
	IC502	NJM4580D	IC		
	IC571	NJM4580D	IC		
	J 411	QNN0420-001	PIN JACK		
	J 426	GP1FA550TZ	OPT TRANSMITTER		
	L 533	QQR1277-001Z	F.BEADS		

■ **Electrical parts list (Main board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	L 551	QQR1277-001Z	F.BEADS		
	Q 401	2SC3576-JVC-T	TRANSISTOR		
	Q 402	2SC3576-JVC-T	TRANSISTOR		
	Q 493	2SC3576-JVC-T	TRANSISTOR		
	Q 494	2SC3576-JVC-T	TRANSISTOR		
	Q 495	2SC3576-JVC-T	TRANSISTOR		
	Q 496	KRA102M-T	D.TRANSISTOR		
	Q 533	2SC2785/FE/-T	TRANSISTOR		
	Q 534	2SC2785/FE/-T	TRANSISTOR		
	Q 545	KRA102M-T	D.TRANSISTOR		
	Q 571	2SC2785/FE/-T	TRANSISTOR		
	Q 572	2SC2785/FE/-T	TRANSISTOR		
	Q 573	2SC2785/FE/-T	TRANSISTOR		
	R 401	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 402	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 403	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 404	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 405	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 406	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 407	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 411	QRE141J-363Y	C RESISTOR	36K 5% 1/4W	
	R 412	QRE141J-363Y	C RESISTOR	36K 5% 1/4W	
	R 413	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 414	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 426	QRE141J-560Y	C RESISTOR	56 5% 1/4W	
	R 435	QRE141J-683Y	C RESISTOR	68K 5% 1/4W	
	R 440	QRE141J-912Y	C RESISTOR	9.1K 5% 1/4W	
	R 442	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R 443	QRE141J-243Y	C RESISTOR	24K 5% 1/4W	
	R 444	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R 445	QRE141J-243Y	C RESISTOR	24K 5% 1/4W	
	R 446	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 447	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 450	QRE141J-124Y	C RESISTOR	120K 5% 1/4W	
	R 451	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 452	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R 453	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 454	QRE141J-154Y	C RESISTOR	150K 5% 1/4W	
	R 455	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 456	QRE141J-154Y	C RESISTOR	150K 5% 1/4W	
	R 458	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 459	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 460	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 477	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 478	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R 480	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 481	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 482	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 493	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 494	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 495	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 496	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 497	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 501	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 502	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 503	QRE141J-303Y	C RESISTOR	30K 5% 1/4W	
	R 504	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 505	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 506	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 507	QRE141J-303Y	C RESISTOR	30K 5% 1/4W	
	R 508	QRE141J-274Y	C RESISTOR	270K 5% 1/4W	
	R 509	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 510	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R 511	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 512	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 513	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 514	QRE141J-822Y	C RESISTOR	8.2K 5% 1/4W	
	R 515	QRE141J-114Y	C RESISTOR	110K 5% 1/4W	
⚠	R 533	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R 534	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 535	QRE141J-225Y	C RESISTOR	2.2M 5% 1/4W	
	R 536	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 537	QRE141J-220Y	C RESISTOR	22 5% 1/4W	
	R 538	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 545	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R 546	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 551	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 552	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 553	QRE141J-113Y	C RESISTOR	11K 5% 1/4W	
	R 554	QRE141J-113Y	C RESISTOR	11K 5% 1/4W	
	R 570	QRE141J-822Y	C RESISTOR	8.2K 5% 1/4W	
	R 571	QRE141J-271Y	C RESISTOR	270 5% 1/4W	
	R 572	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 573	QRE141J-113Y	C RESISTOR	11K 5% 1/4W	
	R 575	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 576	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 577	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 579	QRE141J-154Y	C RESISTOR	150K 5% 1/4W	
	R 580	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R 581	QRE141J-224Y	C RESISTOR	220K 5% 1/4W	
	R 582	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 583	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 585	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 587	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 588	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 589	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	SP434	GV40205-001A	IC HOLDER		

■ **Electrical parts list (Front board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	BZ801	QAN0045-001	BUZZER		
	C 201	QFKC2EK-104	METAL CAPACITOR	.10MF 10% 250V	
	C 202	QFKC2EK-104	METAL CAPACITOR	.10MF 10% 250V	
	C 203	QFKC2EK-104	METAL CAPACITOR	.10MF 10% 250V	
	C 204	QEZ0581-478	E CAPACITOR	4700MF	
	C 205	QEZ0581-478	E CAPACITOR	4700MF	
	C 211	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C 212	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C 213	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C 214	QETM1VM-228	E CAPACITOR	2200MF 20% 35V	
	C 215	QETM1VM-228	E CAPACITOR	2200MF 20% 35V	
	C 217	QETN1JM-107Z	E CAPACITOR	100MF 20% 63V	
	C 218	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 219	QDYB1CM-103Y	C CAPACITOR		
	C 220	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 221	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 222	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 236	QETM1EM-338	E CAPACITOR	3300MF 20% 25V	
	C 240	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 260	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 601	FQCF31HZ-223Z	D CAPACITOR		
	C 602	FQCF31HZ-223Z	D CAPACITOR		
	C 603	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 604	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 605	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 606	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 607	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C 608	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C 609	QCSB1HJ-100Y	C CAPACITOR	10PF 5% 50V	
	C 610	QCSB1HJ-100Y	C CAPACITOR	10PF 5% 50V	
	C 611	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 612	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 613	QFLM1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 614	QFLM1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 615	QFLM1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 616	QFLM1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 618	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 621	QTE1V06-106Z	E CAPACITOR		
	C 622	QTE1V06-106Z	E CAPACITOR		
	C 623	QTE1V06-106Z	E CAPACITOR		
	C 624	QTE1V06-106Z	E CAPACITOR		
	C 639	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 651	QDYB1CM-103Y	C CAPACITOR		
	C 652	QDYB1CM-103Y	C CAPACITOR		
	C 653	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 654	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 732	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 733	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 734	QDYB1CM-103Y	C CAPACITOR		
	C 735	QDYB1CM-103Y	C CAPACITOR		
	C 736	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 737	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 801	FQCF31HP-103Z	C CAPACITOR		
	C 803	QEKC0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 804	QEKC0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 805	QDGB1HK-102Y	C CAPACITOR		
	C 806	QEKC0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 808	QCSB1HJ-270Y	C CAPACITOR	27PF 5% 50V	
	C 809	QCSB1HJ-300Y	C CAPACITOR	30PF 5% 50V	
	C 815	QEKC1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 817	QEKC1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 820	QCZ0202-155Z	ML C CAPACITOR	1.5MF	
	C 821	QDYB1CM-103Y	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C 823	QFVJ1HJ-334Z	MF CAPACITOR	.33MF 5% 50V	
	C 825	QDGB1HK-102Y	C CAPACITOR		
	C 831	QDYB1CM-103Y	C CAPACITOR		
	C 832	QDYB1CM-103Y	C CAPACITOR		
	C 835	QDGB1HK-102Y	C CAPACITOR		
	C 836	QEKC1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 837	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 838	QDGB1HK-102Y	C CAPACITOR		
	C 840	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 889	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 901	QCSB1HJ-100Y	C CAPACITOR	10PF 5% 50V	
	C 958	QDYB1CM-103Y	C CAPACITOR		
	C 959	QDYB1CM-103Y	C CAPACITOR		
	C 960	QDYB1CM-103Y	C CAPACITOR		
	C 961	QDYB1CM-103Y	C CAPACITOR		
	C 962	QDYB1CM-103Y	C CAPACITOR		
	C 963	QDYB1CM-103Y	C CAPACITOR		
	CN 43	QGF1210G1-09	CONNECTOR		
	CN205	QGB2510J1-15	CONNECTOR		
	CN206	QGA2501F1-02	CONNECTOR		
	CN207	QGB2510K2-07	CONNECTOR		
	CN701	QGD2503F1-04	SOCKET		
	CN860	QGF1210G1-23	CONNECTOR		
	CN880	QGF1210G1-13	CONNECTOR		
	CN890	QGF1205F1-13	CONNECTOR		
⚠	CP 1	ICP-N15-T	ICP		
	C1001	QDXB1CM-392Y	C CAPACITOR		
	C1002	QDXB1CM-392Y	C CAPACITOR		
	C1003	QDXB1CM-222Y	C CAPACITOR		
	C1004	QDGB1HK-102Y	C CAPACITOR		
	C1005	QDGB1HK-102Y	C CAPACITOR		
	C1006	QDGB1HK-102Y	C CAPACITOR		
⚠	D 201	1N5402M-20	DIODE		
⚠	D 202	1N5402M-20	DIODE		
⚠	D 203	1N5402M-20	DIODE		
⚠	D 204	1N5402M-20	DIODE		
⚠	D 211	1N5402M-20	DIODE		
⚠	D 212	1N5402M-20	DIODE		
⚠	D 213	1N5402M-20	DIODE		
⚠	D 214	1N5402M-20	DIODE		
	D 219	DZ33BSC-T2	ZENER DIODE		
	D 220	DZ9.1BSB-T2	ZENER DIODE		
	D 221	1SS119-041-T2	SI DIODE		
	D 240	DZ13BSB-T2	ZENER DIODE		
	D 260	1SS119-041-T2	SI DIODE		
	D 261	1SS119-041-T2	SI DIODE		
	D 262	1SS119-041-T2	SI DIODE		
	D 263	1SS119-041-T2	SI DIODE		
	D 264	DZ5.1BSB-T2	ZENER DIODE		
	D 619	1SS119-041-T2	SI DIODE		
	D 620	1SS119-041-T2	SI DIODE		
	D 622	DZ9.1BSB-T2	ZENER DIODE		
	D 650	1SS119-041-T2	SI DIODE		
	D 725	1SS119-041-T2	SI DIODE		
	D 801	1SS119-041-T2	SI DIODE		
	D 802	1SS119-041-T2	SI DIODE		
	D 803	11EQS03LN-T2	SB DIODE		
	D 804	1SS119-041-T2	SI DIODE		
	D 805	1SS119-041-T2	SI DIODE		
	D 806	1SS119-041-T2	SI DIODE		
	D 807	RB721Q-40-T2	SI DIODE		
	D 810	1SS119-041-T2	SI DIODE		
	D 815	DZ6.2BSC-T2	ZENER DIODE		

■ **Electrical parts list (Front board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	D 816	DZ6.2BSC-T2	ZENER DIODE		
	D 831	DZ5.1BSB-T2	ZENER DIODE		
	D 832	DZ5.1BSB-T2	ZENER DIODE		
	D 833	DZ4.3BSB-T2	ZENER DIODE		
	D 901	L-192ZSRD-T	LED		
	D 902	L-192ZSRD-T	LED		
	D 903	L-192ZSRD-T	LED		
	D 942	L-192ZSRD-T	LED		
	D 943	L-192ZSRD-T	LED		
	D 944	L-192ZSRD-T	LED		
	D 945	L-192ZSRD-T	LED		
	D 946	L-192ZSRD-T	LED		
	D 947	L-192ZSRD-T	LED		
	D 948	L-192ZSRD-T	LED		
	D 950	L-192ZSRD-T	LED		
	D 951	L-192ZSRD-T	LED		
	D 962	L-192ZSRD-T	LED		
	D 972	LC503MUR1-30Q	LED		
	D 973	LC503MUR1-30Q	LED		
	D1003	DZ2.4BSB-T2	ZENER DIODE		
	FL801	QLF0096-001	FL TUBE		
	FW202	QUM157-07DGZ4	FLAT WIRE		
	FW204	QJK015-050604	CONN.WIRE ASSY		
	FW221	QUM156-13DGZ4	FLAT WIRE		
	FW711	QUM154-33DGZ4	FLAT WIRE		
	FW800	QUM023-05Z4Z4	PARA RIBON WIRE		
⚠	IC240	KIA7812API	+12V REG.IC		
⚠	IC602	STK402-030	IC		
	IC810	UPD784975AGF303	IC		
	IC811	BU2092	IC		
	IC951	GP1UM271XK	IR DETECT UNIT		
	J 81	QNB0151-001	SPK TERMINAL		
	JS958	QSW0984-001	ROTARY ENCODER	SEARCH	
	JS960	QSW0983-001	ROTARY ENCODER	S/MODE VOL	
	JS962	QSW0862-001	ROTARY SWITCH	MAIN VOL	
	J1001	QNS0204-001	3.5 JACK		
	L 601	QQLZ035-R39	INDUCTOR		
	L 602	QQLZ035-R39	INDUCTOR		
	L 801	QQL244K-100Z	INDUCTOR		
	L 802	QQL231K-220Y	INDUCTOR		
	L 803	QQL29BJ-100Z	INDUCTOR		
	L 805	QQL244K-100Z	INDUCTOR		
	L 806	QQL244K-100Z	INDUCTOR		
	L 807	QQL231K-220Y	INDUCTOR		
	L 815	QQR0621-001Z	FERRITE BEADS		
	L 872	QQR0621-001Z	FERRITE BEADS		
	L1001	QQL231K-470Y	INDUCTOR		
	L1002	QQL231K-470Y	INDUCTOR		
	L1003	QQR1277-001Z	F.BEADS		
	Q 201	KTA1273/Y/-T	TRANSISTOR		
	Q 260	KTC3203/OY/-T	TRANSISTOR		
	Q 601	KTA1268/GL/-T	TRANSISTOR		
	Q 602	KTA1268/GL/-T	TRANSISTOR		
	Q 612	2SA1175/FE/-T	TRANSISTOR		
	Q 613	KRC102M-T	D.TRANSISTOR		
	Q 690	KTC3203/OY/-T	TRANSISTOR		
	Q 733	2SC3576-JVC-T	TRANSISTOR		
	Q 734	2SC3576-JVC-T	TRANSISTOR		
	Q 735	2SC3576-JVC-T	TRANSISTOR		
	Q 736	2SC3576-JVC-T	TRANSISTOR		
	Q 737	KRA111M-T	D.TRANSISTOR		
	Q 810	2SD1991A/RS/-T	TRANSISTOR		
	Q 811	2SD1991A/RS/-T	TRANSISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	Q 812	2SD1991A/RS/-T	TRANSISTOR		
	Q 813	2SD1991A/RS/-T	TRANSISTOR		
	Q 814	2SD1991A/RS/-T	TRANSISTOR		
	Q 815	2SD1991A/RS/-T	TRANSISTOR		
	Q 816	2SD1991A/RS/-T	TRANSISTOR		
	Q 817	2SD1991A/RS/-T	TRANSISTOR		
	Q 818	2SD1991A/RS/-T	TRANSISTOR		
	Q 819	2SD1991A/RS/-T	TRANSISTOR		
	Q 820	2SD1991A/RS/-T	TRANSISTOR		
	Q 821	2SD1991A/RS/-T	TRANSISTOR		
	Q 822	2SD1991A/RS/-T	TRANSISTOR		
	Q 823	2SD1991A/RS/-T	TRANSISTOR		
	Q 833	KRA111M-T	D.TRANSISTOR		
	Q 858	2SD1991A/RS/-T	TRANSISTOR		
	Q 875	KRC102M-T	D.TRANSISTOR		
	Q 879	2SD1991A/RS/-T	TRANSISTOR		
	Q 890	2SD1991A/RS/-T	TRANSISTOR		
	Q 916	KTA1267/YG/-T	TRANSISTOR		
	Q 917	KRC102M-T	D.TRANSISTOR		
	Q 961	KTA1267/YG/-T	TRANSISTOR		
	Q 962	KRC102M-T	D.TRANSISTOR		
⚠	R 202	QRJ146J-470X	UNF C RESISTOR	47 5% 1/4W	
	R 203	QRE141J-752Y	C RESISTOR	7.5K 5% 1/4W	
	R 204	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 205	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 215	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 216	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 217	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R 218	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
⚠	R 240	QRZ9005-100X	F RESISTOR	10 1/4W	
	R 260	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R 261	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R 262	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R 263	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
⚠	R 601	QRJ146J-101X	UNF C RESISTOR	100 5% 1/4W	
⚠	R 602	QRJ146J-101X	UNF C RESISTOR	100 5% 1/4W	
	R 603	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 604	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
⚠	R 605	FQRJ143J-122X	UNF C RESISTOR		
⚠	R 606	FQRJ143J-122X	UNF C RESISTOR		
	R 607	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 608	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
⚠	R 613	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 614	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 615	FQRJ143J-100X	UNF C RESISTOR		
⚠	R 616	FQRJ143J-100X	UNF C RESISTOR		
	R 617	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 618	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 619	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 620	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 621	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 623	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
⚠	R 637	QRJ146J-820X	UNF C RESISTOR	82 5% 1/4W	
⚠	R 639	QRL01DJ-821X	OMF RESISTOR	820 5% 1W	
⚠	R 640	QRL01DJ-821X	OMF RESISTOR	820 5% 1W	
⚠	R 650	FQRJ143J-4R7X	UNF C RESISTOR		
⚠	R 651	FQRJ143J-4R7X	UNF C RESISTOR		
⚠	R 653	QRT01DJ-R22X	MF RESISTOR	5% 1W	
⚠	R 655	QRT01DJ-R22X	MF RESISTOR	5% 1W	
	R 666	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R 667	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 668	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
⚠	R 674	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	

■ **Electrical parts list (Front board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 675	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 676	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 690	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 725	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R 726	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R 731	FQRJ143J-4R7X	UNF C RESISTOR		
⚠	R 732	FQRJ143J-4R7X	UNF C RESISTOR		
	R 733	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 734	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 735	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 736	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
⚠	R 737	QRJ146J-820X	UNF C RESISTOR	82 5% 1/4W	
	R 801	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 802	QRE141J-270Y	C RESISTOR	27 5% 1/4W	
	R 805	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 806	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 807	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 808	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 810	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 811	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 812	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 813	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 814	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 815	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 816	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 817	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 818	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 819	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 820	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 821	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 822	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 823	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 824	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 825	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 826	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 827	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 828	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 829	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 830	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 831	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 832	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 833	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 834	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 835	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 836	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 837	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 838	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 839	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 840	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 841	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 842	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 843	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 844	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 845	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 846	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 847	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 848	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 849	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 850	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 851	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 852	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 853	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 854	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R 855	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 856	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 857	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 858	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 859	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 860	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 861	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 862	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 863	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 865	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 866	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 867	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 868	QRE141J-133Y	C RESISTOR	13K 5% 1/4W	
	R 869	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 870	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 871	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 872	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 873	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 876	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 877	QRE141J-133Y	C RESISTOR	13K 5% 1/4W	
	R 878	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 879	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 880	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 881	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 882	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 883	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 884	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 885	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 886	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 887	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 888	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 889	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 890	QRE141J-133Y	C RESISTOR	13K 5% 1/4W	
	R 891	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 892	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 893	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 894	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 895	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 896	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 897	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 899	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 900	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 901	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 902	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R 903	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 904	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 905	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 906	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 907	QRE141J-163Y	C RESISTOR	16K 5% 1/4W	
	R 908	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 909	QRE141J-334Y	C RESISTOR	330K 5% 1/4W	
	R 911	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 912	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 913	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 916	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 917	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 918	QRE141J-133Y	C RESISTOR	13K 5% 1/4W	
	R 919	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 920	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 921	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 922	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R 923	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 924	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	

■ **Electrical parts list (Front board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 925	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 926	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 927	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 928	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 929	QRE141J-753Y	C RESISTOR	75K 5% 1/4W	
	R 930	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 931	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 932	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 933	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 934	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 935	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 936	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 937	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 938	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 939	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 940	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 941	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 942	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 943	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R 944	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 945	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 946	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 947	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 948	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 949	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 950	QRE141J-334Y	C RESISTOR	330K 5% 1/4W	
	R 952	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 953	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 954	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 955	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 956	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 957	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 958	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 959	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 960	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 961	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 962	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 963	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 969	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 970	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 971	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 972	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 973	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 975	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 976	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 978	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 980	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 981	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 982	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 983	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 984	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 985	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 986	QRE141J-133Y	C RESISTOR	13K 5% 1/4W	
	R 987	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 988	QRE141J-133Y	C RESISTOR	13K 5% 1/4W	
	R 989	QRE141J-133Y	C RESISTOR	13K 5% 1/4W	
	R 990	QRE141J-133Y	C RESISTOR	13K 5% 1/4W	
	R 991	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 992	QRE141J-133Y	C RESISTOR	13K 5% 1/4W	
	R 993	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 994	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 995	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 996	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	RY 1	QSK0109-001	RELAY		
	RY 2	QSK0109-001	RELAY		
	S 900	QSW0674-001Z	TACT SWITCH		
	S 901	QSW0674-001Z	TACT SWITCH		
	S 902	QSW0674-001Z	TACT SWITCH		
	S 903	QSW0674-001Z	TACT SWITCH		
	S 904	QSW0674-001Z	TACT SWITCH		
	S 905	QSW0674-001Z	TACT SWITCH		
	S 906	QSW0674-001Z	TACT SWITCH		
	S 920	QSW0674-001Z	TACT SWITCH		
	S 921	QSW0674-001Z	TACT SWITCH		
	S 922	QSW0674-001Z	TACT SWITCH		
	S 923	QSW0674-001Z	TACT SWITCH		
	S 924	QSW0674-001Z	TACT SWITCH		
	S 925	QSW0674-001Z	TACT SWITCH		
	S 926	QSW0674-001Z	TACT SWITCH		
	S 927	QSW0674-001Z	TACT SWITCH		
	S 928	QSW0674-001Z	TACT SWITCH		
	S 940	QSW0674-001Z	TACT SWITCH		
	S 941	QSW0674-001Z	TACT SWITCH		
	S 942	QSW0674-001Z	TACT SWITCH		
	S 943	QSW0674-001Z	TACT SWITCH		
	S 944	QSW0674-001Z	TACT SWITCH		
	S 945	QSW0674-001Z	TACT SWITCH		
	S 946	QSW0674-001Z	TACT SWITCH		
	S 947	QSW0674-001Z	TACT SWITCH		
	S 948	QSW0674-001Z	TACT SWITCH		
	S 949	QSW0674-001Z	TACT SWITCH		
	SP801	VYH7653-001	IC HOLDER		
	X 801	QAX0724-001Z	CRYSTAL		

■ **Electrical parts list (Tuner board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 1	NCB21HK-223X	C CAPACITOR		
	C 2	NCB21HK-103X	C CAPACITOR		
	C 3	EETC1CM-106ZJC	E CAPACITOR		
	C 4	NCB21HK-103X	C CAPACITOR		
	C 6	NCB21HK-222X	C CAPACITOR		
	C 7	NCB21HK-102X	C CAPACITOR		
	C 8	NCB21HK-102X	C CAPACITOR		
	C 9	NCB21HK-102X	C CAPACITOR		
	C 10	NCS21HJ-120X	C CAPACITOR		
	C 11	NCB21HK-104X	C CAPACITOR		
	C 12	NCB21HK-473X	C CAPACITOR		
	C 13	NCS21HJ-120X	C CAPACITOR		
	C 14	QEKC1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 15	NCS21HJ-120X	C CAPACITOR		
	C 16	NCS21HJ-120X	C CAPACITOR		
	C 17	NCB21HK-392X	C CAPACITOR		
	C 18	QEQ61HM-474Z	NP E CAPACITOR	.47MF 20% 50V	
	C 19	NCB21HK-473X	C CAPACITOR		
	C 20	NCB21HK-102X	C CAPACITOR		
	C 21	NCB21HK-223X	C CAPACITOR		
	C 22	NCS21HJ-151X	C CAPACITOR		
	C 23	NCS21HJ-151X	C CAPACITOR		
	C 24	NCS21HJ-151X	C CAPACITOR		
	C 25	QEKC1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 26	NCB21HK-103X	C CAPACITOR		
	C 27	NCB21HK-103X	C CAPACITOR		
	C 30	EETC1CM-107ZJC	E CAPACITOR		
	C 31	EEKC1CM-226ZJC	E CAPACITOR		
	C 32	NCB21HK-473X	C CAPACITOR		
	C 33	NCB21HK-473X	C CAPACITOR		
	C 34	NCB21HK-223X	C CAPACITOR		
	C 35	NCB21HK-473X	C CAPACITOR		
	C 36	EEKC1HM-105ZJC	E CAPACITOR		
	C 37	EEKC1HM-105ZJC	E CAPACITOR		
	C 38	EETC1HM-224ZJC	E CAPACITOR		
	C 39	EETC1HM-105ZJC	E CAPACITOR		
	C 40	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 41	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 42	NCB21HK-182X	C CAPACITOR		
	C 43	NCB21HK-182X	C CAPACITOR		
	C 44	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 45	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 46	NCB21HK-223X	C CAPACITOR		
	C 47	EETC1HM-105ZJC	E CAPACITOR		
	C 48	NCB21HK-222X	C CAPACITOR		
	C 49	NCS21HJ-471X	C CAPACITOR		
	C 50	EEKC1CM-226ZJC	E CAPACITOR		
	C 51	EEKC1HM-105ZJC	E CAPACITOR		
	C 52	QFVJ1HJ-274Z	MF CAPACITOR	.27MF 5% 50V	
	C 53	EETC1CM-226ZJC	E CAPACITOR		
	C 54	NCB21HK-473X	C CAPACITOR		
	C 55	NCS21HJ-330X	C CAPACITOR		
	C 56	NCS21HJ-100X	C CAPACITOR		
	C 57	NCB21HK-102X	C CAPACITOR		
	C 58	NCB21HK-473X	C CAPACITOR		
	C 59	NCB21HK-102X	C CAPACITOR		
	C 70	NCS21HJ-220X	C CAPACITOR		
	C 71	NCS21HJ-220X	C CAPACITOR		
	C 72	NCB21HK-561X	C CAPACITOR		
	C 73	NCB21HK-104X	C CAPACITOR		
	C 74	NCB21HK-104X	C CAPACITOR		
	C 75	EETC1HM-106ZJC	E CAPACITOR		
	C 76	NCB21HK-331X	C CAPACITOR		
	CF 1	QAX0420-001	C FILTER		
	CF 2	QAX0458-001Z	C FILTER		
	CF 3	QAX0610-001Z	C DISCRIMINATOR		
	CN 1	QGF1205F1-13	CONNECTOR		
	D 1	1SS133-T2	SI DIODE		
	D 2	1SS133-T2	SI DIODE		
	D 3	1SS133-T2	SI DIODE		
	D 4	1SS133-T2	SI DIODE		
	D 11	1SS133-T2	SI DIODE		
	IC 1	LA1838	IC		
	IC 2	LC72136N	IC		
	IC 3	LC72723	IC(RDS)		
	J 1	QNB0014-001	ANT TERMINAL		
	L 1	QQR1094-001	COIL BLOCK		
	L 2	QQL231K-330Y	INDUCTOR		
	L 3	QQL231K-4R7Y	INDUCTOR		
	L 70	QQL231K-101Y	INDUCTOR		
	Q 1	2SC2814/4-5/-X	TRANSISTOR		
	Q 2	2SD601A/QR/-X	TRANSISTOR		
	Q 3	2SD601A/QR/-X	TRANSISTOR		
	Q 4	KRA107S-X	TRANSISTOR		
	Q 5	KRA107S-X	TRANSISTOR		
	R 2	NRSA02J-331X	MG RESISTOR		
	R 3	NRSA02J-224X	MG RESISTOR		
	R 4	NRSA02J-331X	MG RESISTOR		
	R 5	NRSA02J-560X	MG RESISTOR		
	R 6	NRSA02J-120X	MG RESISTOR		
	R 10	NRSA02J-222X	MG RESISTOR		
	R 11	NRSA02J-472X	MG RESISTOR		
	R 12	NRSA02J-472X	MG RESISTOR		
	R 13	NRSA02J-103X	MG RESISTOR		
	R 14	NRSA02J-104X	MG RESISTOR		
	R 15	NRSA02J-332X	MG RESISTOR		
	R 16	NRSA02J-472X	MG RESISTOR		
⚠	R 17	QRZ9005-680X	F RESISTOR	68 1/4W	
	R 18	NRSA02J-102X	MG RESISTOR		
	R 19	NRSA02J-102X	MG RESISTOR		
	R 20	NRSA02J-102X	MG RESISTOR		
	R 21	NRSA02J-562X	MG RESISTOR		
	R 22	NRSA02J-472X	MG RESISTOR		
	R 23	NRSA02J-182X	MG RESISTOR		
	R 24	NRSA02J-103X	MG RESISTOR		
	R 25	NRSA02J-331X	MG RESISTOR		
	R 26	NRSA02J-222X	MG RESISTOR		
	R 27	NRSA02J-103X	MG RESISTOR		
	R 28	NRSA02J-103X	MG RESISTOR		
	R 29	NRSA02J-103X	MG RESISTOR		
	R 30	NRSA02J-122X	MG RESISTOR		
	R 31	NRSA02J-102X	MG RESISTOR		
	R 32	NRSA02J-102X	MG RESISTOR		
	R 33	NRSA02J-331X	MG RESISTOR		
	R 34	NRSA02J-470X	MG RESISTOR		
	R 35	NRSA02J-562X	MG RESISTOR		
	R 36	NRSA02J-332X	MG RESISTOR		
	R 37	NRSA02J-103X	MG RESISTOR		
	R 38	NRSA02J-393X	MG RESISTOR		
	R 39	NRSA02J-393X	MG RESISTOR		
	R 40	NRSA02J-393X	MG RESISTOR		
	R 41	NRSA02J-332X	MG RESISTOR		
	R 60	NRSA02J-0R0X	MG RESISTOR		
	R 72	NRSA02J-102X	MG RESISTOR		
	R 73	NRSA02J-102X	MG RESISTOR		
	T 1	QQR0793-001	IFT		
	TU 1	QAU0160-001	FRONT END		
	X 1	QAX0402-001	CRYSTAL		
	X 70	QAX0263-001Z	CRYSTAL		

■ **Electrical parts list (CD servo board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 253	NCB31CK-104X	C CAPACITOR		
	C 254	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
	C 291	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
	C 601	NCB31HK-222X	C CAPACITOR		
	C 602	NCB31HK-222X	C CAPACITOR		
	C 603	NCB31EK-223X	C CAPACITOR		
	C 604	NCB31EK-223X	C CAPACITOR		
	C 605	NCS31HJ-471X	C CAPACITOR		
	C 606	NCS31HJ-820X	C CAPACITOR		
	C 608	NCB31HK-122X	C CAPACITOR		
	C 610	NCB31CK-273X	C CAPACITOR		
	C 612	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 613	NCB31AK-224X	C CAPACITOR		
	C 614	NCB31CK-273X	C CAPACITOR		
	C 615	NCB31HK-472X	C CAPACITOR		
	C 616	NCB31EK-103X	C CAPACITOR		
	C 617	NCS31HJ-331X	C CAPACITOR		
	C 620	NCS31HJ-330X	C CAPACITOR		
	C 621	NCB30JK-105X	C CAPACITOR		
	C 622	NCB31CK-473X	C CAPACITOR		
	C 623	NCF31AZ-105X	C CAPACITOR		
	C 624	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 625	NCB31CK-104X	C CAPACITOR		
	C 631	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 632	NCF31AZ-105X	C CAPACITOR		
	C 633	NCB31EK-223X	C CAPACITOR		
	C 641	NCB31CK-473X	C CAPACITOR		
	C 642	NCB31HK-472X	C CAPACITOR		
	C 651	NCS31HJ-120X	C CAPACITOR		
	C 652	NCS31HJ-120X	C CAPACITOR		
	C 653	NCB31CK-104X	C CAPACITOR		
	C 655	NCB31CK-104X	C CAPACITOR		
	C 656	NCB31CK-104X	C CAPACITOR		
	C 657	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 658	NCB31CK-104X	C CAPACITOR		
	C 661	NCS31HJ-471X	C CAPACITOR		
	C 663	NCB31EK-223X	C CAPACITOR		
	C 664	NCB31EK-223X	C CAPACITOR		
	C 665	NCB31AK-154X	C CAPACITOR		
	C 668	NCB31CK-473X	C CAPACITOR		
	C 669	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 672	NCB31AK-334X	C CAPACITOR		
	C 673	ECA1AAD101XI	E CAPACITOR		
	C 677	NCB31CK-104X	C CAPACITOR		
	C 679	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 680	NCB31CK-104X	C CAPACITOR		
	C 691	NCS31HJ-391X	C CAPACITOR		
	C 692	NCS31HJ-391X	C CAPACITOR		
	C 693	NCB31HK-682X	C CAPACITOR		
	C 694	NCB31HK-682X	C CAPACITOR		
	C 695	NCB31CK-473X	C CAPACITOR		
	C 696	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 699	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 801	NCB31HK-682X	C CAPACITOR		
	C 802	NCB31HK-472X	C CAPACITOR		
	C 811	NCS31HJ-391X	C CAPACITOR		
	C 812	NCS31HJ-391X	C CAPACITOR		
	C 813	NCS31HJ-391X	C CAPACITOR		
	C 814	NCS31HJ-391X	C CAPACITOR		
	C 821	NCF31AZ-105X	C CAPACITOR		
	C 822	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 852	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 853	NCB31EK-103X	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C 854	NCB31EK-103X	C CAPACITOR		
	C 855	NCB31CK-104X	C CAPACITOR		
	C 859	NCF31AZ-105X	C CAPACITOR		
	C 860	NCF31AZ-105X	C CAPACITOR		
	CN601	QGF1016F3-16	CONNECTOR		
	CN651	QGF1016F3-19	CONNECTOR		
	CN801	QGA2001C1-06	6P PLUG ASSY		
	CN854	QGB2016K1-07	CONNECTOR		
	CN855	QGG2002M4-10	CONNECTOR		
	D 851	DZ5.6BSB-T2	ZENER DIODE		
	IC251	UPD780024A-B76	IC		
	IC601	AN22000A-W	IC		
	IC602	BA15218F-XE	IC		
	IC651	MN35510AL	IC		
	IC652	BA15218F-XE	IC		
	IC801	LA6541-X	IC		
	IC851	LB1641	IC		
	IC852	LB1641	IC		
	Q 291	2SA952/LK/-T	TRANSISTOR		
	Q 631	2SB709A/RS/-X	SI.TRANSISTOR		
	R 253	NRSA63J-102X	MG RESISTOR		
	R 254	NRSA63J-102X	MG RESISTOR		
	R 255	NRSA63J-102X	MG RESISTOR		
	R 256	NRSA63J-102X	MG RESISTOR		
	R 257	NRSA63J-102X	MG RESISTOR		
	R 260	NRSA63J-222X	MG RESISTOR		
	R 261	NRSA63J-223X	MG RESISTOR		
	R 262	NRSA63J-223X	MG RESISTOR		
	R 263	NRSA63J-223X	MG RESISTOR		
	R 264	NRSA63J-223X	MG RESISTOR		
	R 265	NRSA63J-223X	MG RESISTOR		
	R 278	NRSA63J-103X	MG RESISTOR		
	R 280	NRSA63J-102X	MG RESISTOR		
	R 281	NRSA63J-102X	MG RESISTOR		
	R 284	NRSA63J-102X	MG RESISTOR		
	R 291	NRSA63J-122X	MG RESISTOR		
	R 292	NRSA63J-103X	MG RESISTOR		
	R 294	NRSA63J-102X	MG RESISTOR		
	R 601	NRSA63J-474X	MG RESISTOR		
	R 602	NRSA63J-274X	MG RESISTOR		
	R 603	NRSA63J-393X	MG RESISTOR		
	R 604	NRSA63J-274X	MG RESISTOR		
	R 606	NRSA63J-623X	MG RESISTOR		
	R 607	NRSA63J-393X	MG RESISTOR		
	R 608	NRSA63J-0R0X	MG RESISTOR		
	R 609	NRSA63J-472X	MG RESISTOR		
	R 611	NRSA63J-822X	MG RESISTOR		
	R 613	NRSA63J-472X	MG RESISTOR		
	R 614	NRSA63J-153X	MG RESISTOR		
	R 618	NRSA63J-472X	MG RESISTOR		
	R 619	NRSA63J-472X	MG RESISTOR		
	R 620	NRSA63J-472X	MG RESISTOR		
	R 621	NRSA63J-472X	MG RESISTOR		
	R 622	NRSA63J-223X	MG RESISTOR		
	R 623	NRSA63J-223X	MG RESISTOR		
	R 626	NRSA63J-103X	MG RESISTOR		
	R 627	NRSA63J-103X	MG RESISTOR		
	R 628	NRSA63J-155X	MG RESISTOR		
	R 631	NRSA63J-2R2X	MG RESISTOR		
	R 632	NRSA63J-100X	MG RESISTOR		
	R 634	NRSA63J-120X	MG RESISTOR		
	R 635	NRSA63J-121X	MG RESISTOR		
	R 636	NRSA63J-910X	MG RESISTOR		

■ **Electrical parts list (CD servo board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 641	NRSA63J-823X	MG RESISTOR		
	R 642	NRSA63J-564X	MG RESISTOR		
	R 651	NRSA63J-102X	MG RESISTOR		
	R 652	NRSA63J-102X	MG RESISTOR		
	R 653	NRSA63J-102X	MG RESISTOR		
	R 654	NRSA63J-101X	MG RESISTOR		
	R 655	NRSA63J-102X	MG RESISTOR		
	R 656	NRSA63J-102X	MG RESISTOR		
	R 657	NRSA63J-102X	MG RESISTOR		
	R 658	NRSA63J-102X	MG RESISTOR		
	R 659	NRSA63J-102X	MG RESISTOR		
	R 662	NRSA63J-683X	MG RESISTOR		
	R 663	NRSA63J-124X	MG RESISTOR		
	R 664	NRSA63J-331X	MG RESISTOR		
	R 665	NRSA63J-271X	MG RESISTOR		
	R 666	NRSA63J-221X	MG RESISTOR		
	R 667	NRSA63J-4R7X	MG RESISTOR		
	R 668	NRSA63J-155X	MG RESISTOR		
	R 670	NRSA63J-101X	MG RESISTOR		
	R 672	NRSA63J-272X	MG RESISTOR		
	R 682	NRSA63J-102X	MG RESISTOR		
	R 691	NRSA63J-103X	MG RESISTOR		
	R 692	NRSA63J-103X	MG RESISTOR		
	R 695	NRSA63J-243X	MG RESISTOR		
	R 696	NRSA63J-243X	MG RESISTOR		
	R 701	NRSA63J-821X	MG RESISTOR		
	R 702	NRSA63J-821X	MG RESISTOR		
	R 703	NRSA63J-103X	MG RESISTOR		
	R 704	NRSA63J-103X	MG RESISTOR		
	R 705	NRSA63J-562X	MG RESISTOR		
	R 706	NRSA63J-202X	MG RESISTOR		
	R 707	NRSA63J-682X	MG RESISTOR		
	R 708	NRSA63J-101X	MG RESISTOR		
	R 709	NRSA63J-101X	MG RESISTOR		
	R 710	NRSA63J-221X	MG RESISTOR		
	R 801	NRSA63J-272X	MG RESISTOR		
	R 802	NRSA63J-472X	MG RESISTOR		
	R 803	NRSA63J-472X	MG RESISTOR		
	R 804	NRSA63J-823X	MG RESISTOR		
	R 805	NRSA63J-912X	MG RESISTOR		
	R 806	NRSA63J-473X	MG RESISTOR		
	R 807	NRSA63J-272X	MG RESISTOR		
	R 808	NRSA63J-433X	MG RESISTOR		
	R 809	NRSA63J-122X	MG RESISTOR		
	R 811	NRSA63J-103X	MG RESISTOR		
	R 831	NRSA63J-151X	MG RESISTOR		
	R 832	NRSA63J-103X	MG RESISTOR		
	R 842	NRSA63J-472X	MG RESISTOR		
	R 851	NRSA63J-102X	MG RESISTOR		
	R 852	NRSA63J-102X	MG RESISTOR		
	R 853	NRSA63J-102X	MG RESISTOR		
	R 854	NRSA63J-102X	MG RESISTOR		
	R 861	NRSA63J-102X	MG RESISTOR		
	R 862	NRSA63J-102X	MG RESISTOR		
	R 863	NRSA63J-102X	MG RESISTOR		
	R 864	NRSA63J-102X	MG RESISTOR		
	R 865	NRSA63J-102X	MG RESISTOR		
	R 866	NRSA63J-102X	MG RESISTOR		
	R 880	NRSA63J-102X	MG RESISTOR		
	R 881	NRSA63J-102X	MG RESISTOR		
	R 882	NRSA63J-102X	MG RESISTOR		
	R 883	NRSA63J-102X	MG RESISTOR		
	R 884	NRSA63J-102X	MG RESISTOR		
	R 885	NRSA63J-102X	MG RESISTOR		
	R 886	NRSA63J-102X	MG RESISTOR		
	R 887	NRSA63J-102X	MG RESISTOR		
	W 601	QUB220-07HPDT	SIN TWIST WIRE		
	X 251	QAX0720-001Z	C RESONATOR		
	X 651	QAX0413-001Z	CRYSTAL		

■ **Electrical parts list (CD switch board)** **Block No. 06**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN804	QGB2016J1-07	CONNECTOR		
	CN805	QGB2012J1-10	CONNECTOR		
	SW 1	QSW0859-001	LEVER SWITCH		
	SW 2	QSW0859-001	LEVER SWITCH		
	SW 3	QSW0859-001	LEVER SWITCH		
	SW 4	QSW0859-001	LEVER SWITCH		
	SW 5	QSW0859-001	LEVER SWITCH		
	SW 6	QSW0859-001	LEVER SWITCH		

■ Electrical parts list (Head amplifier board) Block No. 07

⚠	Item	Parts number	Parts name	Remarks	Area
	C 101	NCS21HJ-821X	C CAPACITOR		
	C 102	NCS21HJ-221X	C CAPACITOR		
	C 103	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 104	NCB21HK-333X	C CAPACITOR		
	C 105	NCB21HK-222X	C CAPACITOR		
	C 106	QEKJ1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 107	NCS21HJ-561X	C CAPACITOR		
	C 108	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 109	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 110	NCB21HK-682X	C CAPACITOR		
	C 111	NCB21HK-152X	C CAPACITOR		
	C 113	NCB21HK-393X	C CAPACITOR		
	C 121	NCS21HJ-331X	C CAPACITOR		
	C 201	NCS21HJ-821X	C CAPACITOR		
	C 202	NCS21HJ-221X	C CAPACITOR		
	C 203	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 204	NCB21HK-333X	C CAPACITOR		
	C 205	NCB21HK-222X	C CAPACITOR		
	C 206	QEKJ1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 207	NCS21HJ-561X	C CAPACITOR		
	C 208	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 209	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 210	NCB21HK-682X	C CAPACITOR		
	C 211	NCB21HK-152X	C CAPACITOR		
	C 213	NCB21HK-393X	C CAPACITOR		
	C 221	NCS21HJ-331X	C CAPACITOR		
	C 301	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 302	NCB21HK-393X	C CAPACITOR		
	C 303	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 304	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 305	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 306	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 307	NCB21HK-103X	C CAPACITOR		
	C 308	NCB21HK-152X	C CAPACITOR		
	C 310	NCB21HK-223X	C CAPACITOR		
	C 313	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 314	QCZ0202-155Z	ML C CAPACITOR	1.5MF	
	C 316	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C 319	QFLM1HJ-472Z	M CAPACITOR	4700PF 5% 50V	
	C 331	QEKJ1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 371	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 374	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 376	NCB21HK-103X	C CAPACITOR		
	CN 31	QGF1205F1-06	CONNECTOR	PRI/HEAD	
	CN 32	QGB2011M1-10	B TO B CONNECTO	PRI/MECHA	
	CN 33	QGF1205F1-09	CONNECTOR	PRI/MICON	
	CN 34	QGF1201F3-10	CONNECTOR	PRI/AMP	
	D 375	MA3051/M/-X	Z DIODE		
	FW 31	QUM024-06A2Z3	PARA RIBON WIRE		
	IC 31	BA3126N	IC	HEAD SW	
	IC 32	AN7317	IC	PB&REC	
	IC 33	BU4094BCF-X	IC		
	L 301	QQR1292-001	BIAS COIL		
	L 303	QQL244K-100Z	INDUCTOR		
	Q 302	KTC3203/Y/-T	TRANSISTOR	OSC	
⚠	Q 305	KTC3203/Y/-T	TRANSISTOR	SW	
	Q 321	UN2213-X	TRANSISTOR	BUFFER	
	Q 371	KTA1271/OY/-T	TRANSISTOR	MOTER+B	
	Q 372	UN2212-X	TRANSISTOR		
	Q 375	2SB562/C/-T	TRANSISTOR	SOLENOID DRIVE	
	Q 376	2SD601A/QR/-X	TRANSISTOR		
	R 101	NRSA63J-220X	MG RESISTOR		
	R 102	NRSA63J-182X	MG RESISTOR		
	R 103	NRSA63J-242X	MG RESISTOR		
	R 104	NRSA63J-122X	MG RESISTOR		
	R 105	NRSA63J-104X	MG RESISTOR		
	R 106	NRSA63J-332X	MG RESISTOR		
	R 107	NRSA63J-123X	MG RESISTOR		
	R 108	NRSA63J-562X	MG RESISTOR		
	R 109	NRSA63J-102X	MG RESISTOR		
	R 110	NRSA63J-272X	MG RESISTOR		
	R 111	NRSA63J-363X	MG RESISTOR		
	R 112	NRSA63J-222X	MG RESISTOR		
	R 116	NRSA63J-102X	MG RESISTOR		
	R 121	NRSA63J-153X	MG RESISTOR		
	R 122	NRSA63J-102X	MG RESISTOR		
	R 201	NRSA63J-220X	MG RESISTOR		
	R 202	NRSA63J-182X	MG RESISTOR		
	R 203	NRSA63J-242X	MG RESISTOR		
	R 204	NRSA63J-122X	MG RESISTOR		
	R 205	NRSA63J-104X	MG RESISTOR		
	R 206	NRSA63J-332X	MG RESISTOR		
	R 207	NRSA63J-123X	MG RESISTOR		
	R 208	NRSA63J-562X	MG RESISTOR		
	R 209	NRSA63J-102X	MG RESISTOR		
	R 210	NRSA63J-272X	MG RESISTOR		
	R 211	NRSA63J-363X	MG RESISTOR		
	R 212	NRSA63J-222X	MG RESISTOR		
	R 216	NRSA63J-102X	MG RESISTOR		
	R 221	NRSA63J-153X	MG RESISTOR		
	R 222	NRSA63J-102X	MG RESISTOR		
	R 301	NRS181J-221X	MG RESISTOR		
	R 303	NRSA63J-393X	MG RESISTOR		
	R 304	NRS181J-101X	MG RESISTOR		
	R 310	QRJ146J-4R7X	UNF C RESISTOR	4.7 5% 1/4W	
	R 313	NRSA63J-2R2X	MG RESISTOR		
	R 314	NRSA63J-153X	MG RESISTOR		
	R 315	NRSA63J-101X	MG RESISTOR		
	R 327	NRSA63J-474X	MG RESISTOR		
	R 335	NRSA63J-152X	MG RESISTOR		
	R 336	NRSA63J-472X	MG RESISTOR		
	R 337	NRSA63J-332X	MG RESISTOR		
	R 338	NRSA63J-392X	MG RESISTOR		
	R 339	NRSA63J-222X	MG RESISTOR		
	R 340	NRS181J-391X	MG RESISTOR		
	R 341	NRSA63J-123X	MG RESISTOR		
	R 342	NRSA63J-203X	MG RESISTOR		
	R 343	NRSA63J-183X	MG RESISTOR		
⚠	R 353	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 371	NRSA63J-123X	MG RESISTOR		
	R 372	NRSA63J-102X	MG RESISTOR		
	R 375	NRSA02J-151X	MG RESISTOR	1/8W	
	R 376	NRSA63J-472X	MG RESISTOR		
	VR 31	QVP0008-203Z	SEMI V RESISTOR	BIAS ADJ	
	VR 37	QVP0008-103Z	SEMI V RESISTOR	TAPE SPEED ADJ	

■ Electrical parts list (Cassette switch board) Block No. 08

⚠	Item	Parts number	Parts name	Remarks	Area
	CN 1	QGB2011L1-10	B TO B CONNECTO		
	D 1	1T3-T2	SI DIODE		
	IC 1	SG-105F3-BB,C	PHOTO SENSER		
	P 1	QNZ0104-001	POST PIN		
	SW 1	QSW0832-001	LEAF SWITCH	R.REC	
	SW 2	QSW0832-001	LEAF SWITCH	TAPE	
	SW 5	QSW0832-001	LEAF SWITCH	F.REC	
	SW 6	QSW0859-001	LEVER SWITCH		

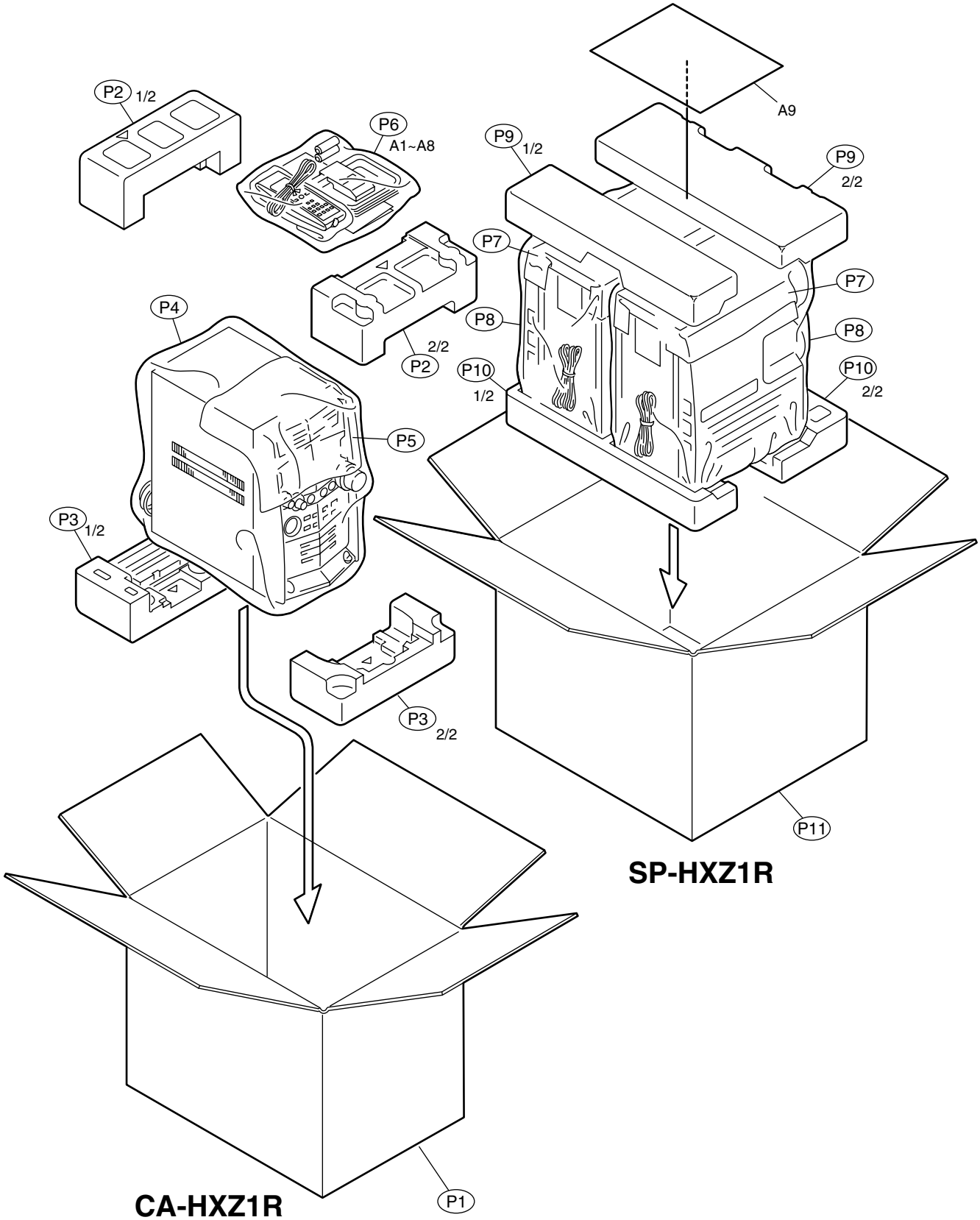
< MEMO >

Packing materials and accessories parts list

B/E/EN version

Block No. M 3 M M

Block No. M 5 M M



■ Parts list (Packing) B/E/EN version

Block No. M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	GV20181-001A	PACKING CASE	1	CA-HXZ1R	
	P 2	GV10118-001A	TOP CUSHION	1	CA-HXZ1R	
	P 3	GV10119-001A	BOTTOM CUSHION	1	CA-HXZ1R	
	P 4	QPC06507015P	POLY BAG	1	CA-HXZ1R	
	P 5	GV40168-007A	SHEET	1	CA-HXZ1R	
	P 6	QPC02503515P	POLY BAG	1	CA-HXZ1R	
	P 7	138764501088	MIRROR MAT	2	SP-HXZ1R	
	P 8	138737001089	POLY BAG	2	SP-HXZ1R	
	P 9	139764981066	TOP CUSHION	1	SP-HXZ1R	
	P 10	139764981067	BOTTOM CUSHION	1	SP-HXZ1R	
	P 11	140774991314	PACKING CASE	1	SP-HXZ1R	

■ Parts list (Accessories) B/E/EN version

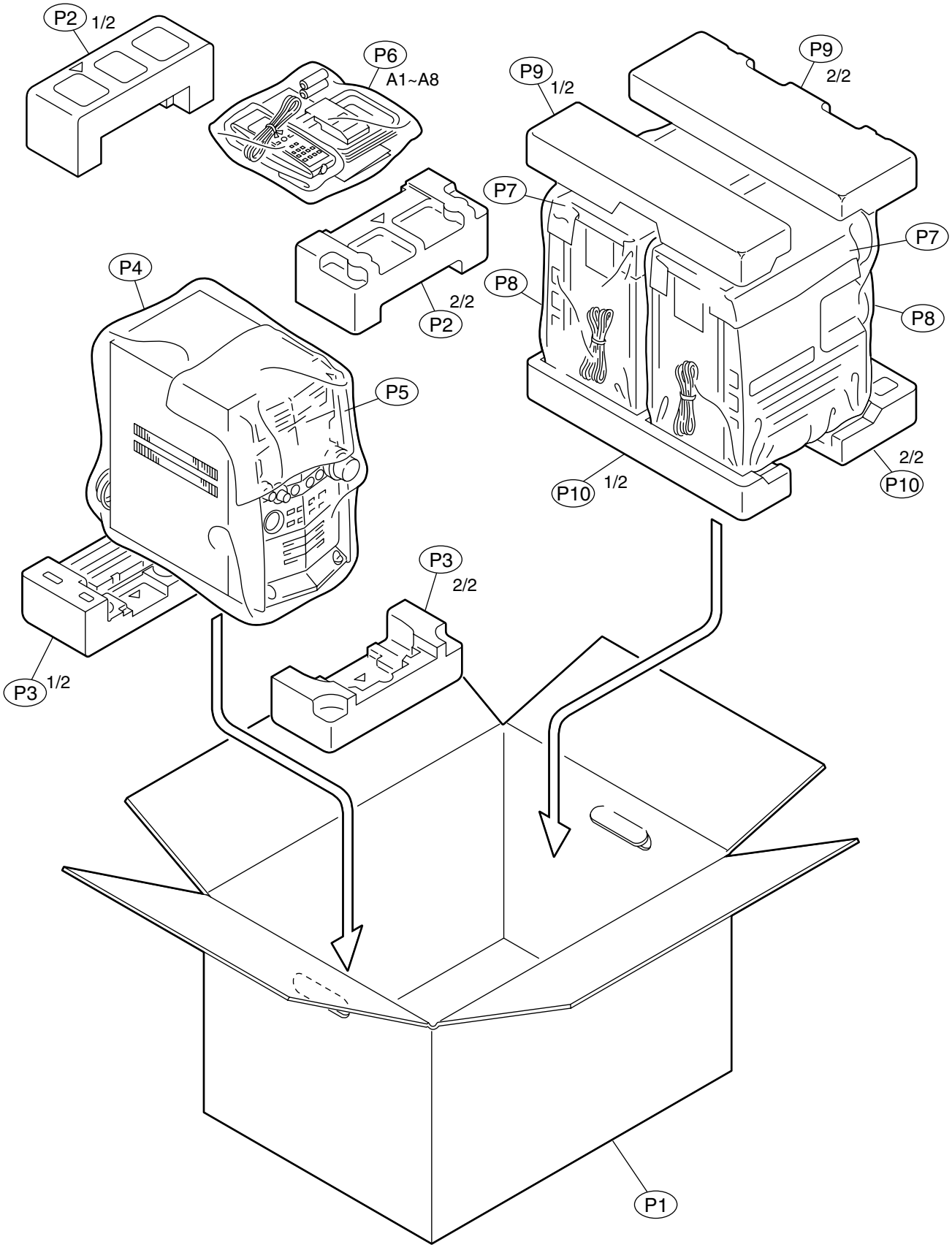
Block No. M5MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	GVT0077-006A	I.B.(CA-MXZ1R)	1	GER,FRE,DUT	E
		GVT0077-008A	I.B.(CA-MXZ1R)	1	ENG	B
		GVT0077-007A	I.B.(CA-MXZ1R)	1	SWE,FIN,DAN,GER, FRE,SPA,ITA	EN
	A 2	GV40325-006A	NOTICE CARD	1		
	A 3	BT-54013-1	WARRANTY CARD	1		
	A 4	VNA3000-204	REGIST.CARD	1		B
	A 5	QAL0014-001	AM LOOP ANT	1		
	A 6	EWP503-001	ANT.WIRE	1		
	A 7	RM-SHXZ3R	REMOCON	1		
	A 8	----------	BATTERY	2		
	A 9	GVT0084-002A	I.B.(SP-HXZ1R)	1	ENG,GER,FRE,DUT,SPA, ITA,SWE,DAN,FIN	

Packing materials and accessories parts list

EV version

Block No. M 4 M M
Block No. M 6 M M



■ Parts list (Packing) EV version

Block No. M4MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	GV20176-002A	PACKING CASE	1		
	P 2	GV10118-001A	TOP CUSHION	1		
	P 3	GV10119-001A	BOTTOM CUSHION	1		
	P 4	QPC06507015P	POLY BAG	1		
	P 5	GV40168-007A	SHEET	1		
	P 6	QPC02503515P	POLY BAG	1		
	P 7	138764501088	MIRROR MAT	2	FOR SPEAKER	
	P 8	138737001089	POLY BAG	2	FOR SPEAKER	
	P 9	139764931064	TOP CUSHION	1	FOR SPEAKER	
	P 10	139764931065	BOTTOM CUSHION	1	FOR SPEAKER	

■ Parts list (Accessories) EV version

Block No. M6MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	GVT0077-009A	INST.BOOK	1	CZE,POL,HUN,RUS	
	A 2	GV40325-009A	NOTICE CARD	1		
	A 3	BT-54013-1	WARRANTY CARD	1		
	A 5	QAL0014-001	AM LOOP ANT	1		
	A 6	EWP503-001	ANT.WIRE	1		
	A 7	RM-SHXZ3R	REMOCON	1		
	A 8	----------	BATTERY	2		